



Hydrogeological Level 1 and 2 Report

MacLeod Quarries III and V

17361 South Branch Road, South Stormont, Ontario

Prepared for:

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Executive Summary

McIntosh Perry Consulting Engineers Ltd. (McIntosh Perry) was retained by Cornwall Gravel Company Ltd. to conduct a hydrogeological assessment for two property parcels which represent a proposed expansion to the existing MacLeod Quarry, located between Headline Road and South Branch Road in the Township of South Stormont, Ontario. The existing aggregate licenses for the property consist of three properties, labelled from west to east as MacLeod - II, - I and - IV; currently only MacLeod I is under extraction. The current street address of the quarry is 17361 South Branch Road. This Hydrogeological Level 1 and 2 Study is being prepared in support of a Class A, Category 1 and 2 License (pit and quarry below the water table, with proposed extraction of over 20,000 tonnes per year) for the properties designated as MacLeod III (immediately to the west of MacLeod II) and MacLeod V (immediately to the east of MacLeod IV). Legal descriptions are as follows:

- MacLeod III: Part of Lot 6, Concession 4, Geographical Township of Cornwall
- MacLeod V: Part of Lot 2, Concession 4, Geographical Township of Cornwall

The proposed operations at MacLeod III and V will operate under separate licenses from the current operations at the site.

The purpose of this hydrogeological assessment was to determine the suitability of the site for the proposed aggregate extraction operation, from a hydrogeological perspective. Impacts to surrounding water supply wells, natural features, surface water bodies, and drainage patterns were considered. Mitigation measures for the protection of surface water and groundwater quality were considered based on the findings of the study. The scope of work for this assignment consisted of a review of available background information, including hydrogeological assessments completed for previous licence areas, followed by the drilling, monitoring, and hydraulic conductivity testing of monitoring wells on the proposed MacLeod III and V properties. Results of previous assessments and ongoing groundwater monitoring activities at the subject site have been incorporated into the conclusions of this report.

The majority of surrounding water supply wells in the area are completed in the upper fractured bedrock, which is considered hydraulically connected to the lower glacial till (previous reports refer to the shallow bedrock aquifer as the overburden interface aquifer). Monitoring wells were completed in the shallow bedrock aquifer, the deep bedrock aquifer (intended to represent the full proposed extraction depth of the quarry), and in the gravel layer, where encountered. Pumping tests were completed at one location on MacLeod III and one location on MacLeod V. Hydrogeological testing results indicated that the influence of pumping from wells completed in the deep bedrock aquifer will have a minimal effect on wells completed in the shallow bedrock aquifer.

Although the development of the quarry will affect drainage patterns on the subject site, proposed developmental controls and ongoing pumping from the quarry sump to surrounding drainage ditches will ensure that no significant impacts to surrounding surface water bodies occur. Based on observations from the existing quarry face, the shallow bedrock aquifer is being recharged on a localized scale from a drainage ditch into which water pumped from the quarry sump is being discharged. On a larger scale, recharge to the shallow bedrock aquifer is interpreted to occur in upland areas, and the low-permeability overburden deposits on the site are interpreted to limit localized recharge in areas of thicker overburden. Following quarry extraction, site

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grading and the capping of seepage faces with lower permeability soils will serve to preserve baseflow in surrounding surface water features and recharge into the shallow bedrock aquifer unit.

It is our opinion that the site is suitable for the proposed development, as long as it is developed under the terms and conditions of the Site Plans as approved by the Ministry of Natural Resources and Forestry (MNRF). Recommendations for semi-annual monitoring of on-site wells, the development of an off-site monitoring program, site operations, and contingency measures as summarized in this report will be reflected on the site plans.

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1.0 INTRODUCTION

McIntosh Perry Consulting Engineers Ltd. (McIntosh Perry) was retained by Cornwall Gravel Company Ltd. (Cornwall Gravel) to conduct a Hydrogeological Level 1 and 2 Study for the proposed MacLeod III and MacLeod V quarries, located between Headline Road and South Branch Road east of McConnell Avenue, in the Township of South Stormont (Geographical Township of Cornwall), Ontario. The address of the existing quarry is 17361 South Branch Road.

Cornwall Gravel currently operates the MacLeod Quarry, and is extracting limestone from the area designated as MacLeod I. Cornwall Gravel currently holds licenses for MacLeod II, immediately to the west of the current extraction area, and MacLeod IV, immediately to the east of the current extraction area. This Hydrogeological Level 1 and 2 Study is being prepared in support of a Class A, Category 1 and 2 License (pit and quarry below the water table, with proposed extraction of over 20,000 tonnes per year) for the properties designated as MacLeod III (immediately to the west of MacLeod II) and MacLeod V (immediately to the east of MacLeod IV). Legal descriptions are as follows:

- MacLeod III: Part of Lot 6, Concession 4, Geographical Township of Cornwall
- MacLeod V: Part of Lot 2, Concession 4, Geographical Township of Cornwall

The proposed operations at MacLeod III and V will operate under separate licenses from the current operations at the site. The MacLeod III property is approximately 37.8 hectares in area, with a proposed extraction area of 29.5 hectares. The MacLeod V property is approximately 40.5 hectares in area, with a proposed extraction area of 32.4 hectares.

1.1 Scope of Study

The purpose of this study is to address the Level 1 and Level 2 Hydrogeological Study requirements outlined in the Aggregate Resources of Ontario Provincial Standards. As per the Standards, the following areas have been addressed by this report:

- Review of surrounding water wells
- Presence or absence of springs
- Groundwater aquifers
- Surface water courses and bodies
- Discharge to surface water
- Proposed water storage, diversion, and drainage facilities on site
- Methodology of site-specific hydrogeological investigations
- Description of the physical setting of the site, including geology, hydrogeology, and surface water systems
- Water budget
- Impact assessment
- Mitigation measures, including trigger mechanisms
- Contingency plan



- Monitoring plan
- Technical support data in the forms of tables, graphs, and figures

Extensive hydrogeological work has been previously undertaken at the site by Gorrell Resource Investigations (Gorrell) and BGC Engineering Inc. (BGC), and has been incorporated into this report to the extent possible. In particular, a Level 1 and Level 2 Hydrogeological Study completed by BGC in 2012 in support of the MacLeod IV license, and ongoing water level monitoring since 1998, have been instrumental in the completion of this report. A full list of references is provided following the body of this report.

In addition to the work completed previously, McIntosh Perry carried out a field investigation program in cooperation with Cornwall Gravel for the purpose of providing site-specific information on the MacLeod III and V properties. The results of our investigation have been incorporated into our conceptual understanding of the site as a whole to allow for a complete and comprehensive assessment of the cumulative effects of the proposed long-term extraction plan for the site.

It is our understanding that Cornwall Gravel is currently in the process of deepening the existing aggregate licenses for the MacLeod I, II, and IV properties to an elevation of -33 m ASL through a major site plan amendment. A final extraction depth of -33 m ASL has been assumed for the existing and proposed licenses, and as such, this report is intended to support the proposed site plan amendment for the MacLeod I, II, and IV properties as well as the license application for the MacLeod III and V properties.

2.0 BACKGROUND

2.1 Site Setting

The MacLeod quarry site is located on the south side of Headline Road, east of McConnell Avenue, in the Township of South Stormont (Geographical Township of Cornwall), Ontario, approximately 800 m north of the Cornwall city limit. The MacLeod III property comprises part of Lot 6, Concession 4, Geographical Township of Cornwall, and the MacLeod V property comprises part of Lot 2, Concession 4. The site location is shown on Figure 1.

The site is located in a predominantly rural area. In addition to the City of Cornwall, located to the south of the site, areas of settlement in the vicinity include Rosedale Terrace (located approximately 1.8 km west of the site at Highway 138 and Cornwall Centre Road), Eamer's Corners (located approximately 1.4 km southwest of the site at Pitt Street and South Branch Road), Grant's Corners (located approximately 2.2 km southeast of the site at Headline Road and Street Road), and St. Andrews West (located approximately 3 km northwest of the site at Highway 138 and Dundas Street).

The southern half of the MacLeod III is currently agricultural land. Farm buildings are present on this property. The north half of MacLeod III is brush covered/fallow. The majority of the MacLeod V property currently consists of vacant cleared/grubbed land, having previously covered with brush and trees. A small area at the southwest corner of the MacLeod V property is agricultural (planted with soybeans as of the summer of 2016). These properties represent aggregate reserve lands owned by Cornwall Gravel, and intended for future extraction as an expansion of the existing MacLeod quarry operations, although it is our understanding that they will operate under a separate aggregate license. Based on conversations with Cornwall Gravel, these sites will be developed as needed. However, it is expected that the sites will be held in reserve for some time (decades).

The operating portion of the MacLeod quarry, located centrally on Lots 3 and 4, was first used for stone for the Cornwall Canal, and has been operated by Cornwall Gravel since 1959. The MacLeod I property is currently the only property undergoing extraction at this time. The licensed extraction depth at MacLeod I is 0.0 m ASL (above mean sea level), with an average licensed depth of 65 m. The current quarry floor has been extracted to approximately 10 m ASL, although the sump extends deeper. It is our understanding that Cornwall Gravel intends to deepen the existing licenses to -33 m ASL, as well as license the MacLeod III and V quarries for an extraction depth of -33 m ASL.

The current licensed area of the MacLeod Quarry is designated as Extractive Resource lands (Licensed Pit & Quarry) under the Official Plan of the United Counties of Stormont, Dundas and Glengarry. The MacLeod III and MacLeod V properties are designated as Extractive Resource Lands (Mineral Aggregate Reserve).

2.2 Neighbouring Properties and Surrounding Land Use

Land use in the immediate vicinity of the subject site is generally agricultural or vacant/wooded, although various homes and businesses are present along Headline Road, McConnell Avenue, and South Branch Road.

Land use of surrounding properties is generally designated as Agricultural Resource Lands or Rural District, with the exception of a property located at 17703 Headline Road (to the northeast of MacLeod III and to the northwest of MacLeod V), which is designated as Salvage Yard District (a salvage yard is currently operating at this property). Areas along Headline Road west of McConnell Avenue are designated as a Rural Settlement Area.

No Provincially Significant Wetlands (PSWs) or other Areas of Natural or Scientific Interest (ANSIs) were noted in the vicinity of the Site.

2.3 Site Topography

Topography at the subject site and surrounding areas is generally flat to hummocky, sloping downwards towards the south. Elevations on-site vary from approximately 75 m along Headline Road to approximately 60 m along South Branch Road. The topography of the subject site is interpreted to reflect local bedrock topography. It is noted that an area of particularly shallow bedrock is noted in the central portion of the site, extending in an approximate east-west orientation. The extraction area of the quarry on the MacLeod I property represents the most significant topographical feature in the area, extending downward to elevations approaching 0 m ASL in its deepest portion (quarry sump).

Regional topography is generally influenced by bedrock topography, and trends downward to the south towards the St. Lawrence River. Drumlins, moraine features, and river valleys, specifically those associated with the Raisin River and its tributaries, provide local relief. Site and regional topography and drainage are shown on Figure 3.

As part of the ARA license application for the subject site, a detailed topographic survey of the property has been prepared. Topographic survey information has been incorporated into the Site Plan for the property, and is shown on the figures appended to this report.

2.4 Site Hydrology

The MacLeod Quarry properties are located within the South Raisin River watershed. Surface water features on the MacLeod Quarry properties consist primarily of agricultural drains. A series of agricultural drains are present on the MacLeod I property; the quarry sump is pumped into a ditch running in a north-south direction along the quarry access road between MacLeod I and MacLeod II. The ditch connects to a series of agricultural drains on the MacLeod I and II properties and eventually connects with the Eastman Drain (a tributary of the South Raisin River) south of South Branch Road. The Eastman Drain runs in a northwest-to-southeast direction in the vicinity of the site, and crosses the southwest corner of the MacLeod III property.

The MacLeod IV property is drained by an agricultural drain which originates in a ditch running in a north/south direction along the east property boundary, then westerly onto the MacLeod I property and from there to the Eastman Drain. There are currently no surface water features on the MacLeod V property. It is our understanding that agricultural fields to the south of the Macleod V property are drained by agricultural tile drains.

2.4.1 Site Catchment Area

Mapping of catchment areas for the proposed MacLeod III and MacLeod V quarry footprints was completed based on available topographic mapping and on previous work completed by BGC. The catchment area of MacLeod III consists of the entire parcel footprint, an area of approximately 36.4 ha. Currently, this entire area and adjacent portions of MacLeod II and lands to the east and west drains to the Eastman Drain. As quarry development takes place at MacLeod II and III, progressively larger portions of the extraction area will drain towards the MacLeod I quarry sump. However, it is our understanding that water pumped from the quarry sump will continue to be pumped to the ditch connecting to the Eastman Drain.

The northwestern portion of the MacLeod V footprint currently drains to the current footprint of the MacLeod I quarry. The majority of the MacLeod V footprint, an area of 37.4 hectares, slopes down to the southeast and drains towards agricultural drains east of the site, either by surface flow or by agricultural tile drains.

Approximate catchment areas in the vicinity of the subject site are shown in Figure 3.

2.4.2 Pre-Development Hydrologic Cycle

Prior to development of the quarry, the area of the site is considered to have been primarily agricultural. Based on surrounding soils, overburden is considered to have consisted of till and/or silty clay, with shallower bedrock present in the topographical high area in the central portion of the site. Infiltration was likely higher in areas of shallow bedrock, and lower in areas of thicker low-conductivity overburden deposits. Surface drainage at the subject site was in a northeasterly direction to an agricultural drain, or south to the Eastman Drain, both of which are tributaries of the Raisin River.

2.4.3 Present Hydrologic Cycle

Currently, the MacLeod I quarry footprint is currently under development. The quarry was developed in the vicinity of a former topographical high point, where bedrock was available for extraction with a minimum of overburden removal. Although terrain generally slopes away from the extraction area of the quarry, a certain amount of surface runoff from surrounding areas flows into the quarry footprint and is directed towards the quarry sump. The catchment area of the current quarry footprint is approximately 107.9 hectares, of which 32.9 ha consist of the excavation footprint and the remaining 72 ha consist of surrounding land to the north and north-west which drains to the quarry.

2.4.4 Post-Development Hydrologic Cycle

For the purposes of this assessment, the MacLeod II and IV quarries is being considered concurrently with the MacLeod III and V quarry applications, as extraction has not started on these licenses. The MacLeod II, III, IV, and V quarries will ultimately add 121 ha to the existing extraction area. MacLeod III and V will add 23.4 and 33.0 hectares, respectively, to the extraction area. Under full extraction, the extraction area footprint will be 242.4 hectares, and the catchment area draining to the extraction area will be approximately 86.1 hectares.

A summary of the license and extraction areas of the existing and proposed MacLeod quarries is provided below.

Table 1 Summary of License and Extraction Areas					
	License Area	Extraction Area			
MacLeod I	125.8	121.4			
MacLeod II	37.7	33.6			
MacLeod III	37.8	29.5			
MacLeod IV	26.02	22.88			
MacLeod V	40.5	32.4			
Total	267.82	239.78			

Drainage patterns under full quarry development are shown on Figure 3, appended to this report.

2.4.5 Site Water Use

The MacLeod quarry currently operates under Permit To Take Water (PTTW) 8253-82BR66. This PTTW covers pumping of water from the quarry sump, as well as on-site water use for quarry operations purposes.

The sump is located in the western portion of the extraction area, at the lowest point of the quarry, and is approximately 91 m by 31 m with a depth of approximately 7.6 m. The sump is equipped with an electrical submersible pump, which operates automatically on an as-needed basis by a float system. The pump may also be operated manually to supply water for dust suppression or other uses.

Although the system has the capability to operate continuously, quarry dewatering occurs on an as-needed basis to remove accumulated runoff from the quarry and to provide water for quarry operations. The system is equipped with a totalizing flow meter for the purpose of reporting pumping volumes under the PTTW. Pumping rates for recent years are summarized below:

Table 2 Summary of Pumping Rates						
2012	2013	2014	2015			
804,609,509 L	817,007,498 L	862,963,000 L	786,407,562 L			

Quarry operations which use water from the sump include the crusher plant and the aggregate wash plant. Water is also used for dust suppression on-site.

2.4.6 Water Balance

The water balance for the MacLeod III and V sites was calculated using the general methodology used by BGC in their 2012 report for the MacLeod IV site. Precipitation data for the water balance calculations were obtained from the Environment Canada database for Climate Station 6101874, located in Cornwall, Ontario. Climate station details and precipitation data are summarized below:

Table 3: Climate Data Cornwall, ON (Climate ID: 6101874)					
Latitude: 45°00'56.082" Longitude: 74°44'56.040'		Elevation: 64.00 m ASL			
Year	Annual Total (mm)	Year	Annual Total (mm)		
EC Normal, 1981-2010	1011.5	2011	915.1		
2006	1174.1	2012	934.8		
2007	824	2013	978.4		
2008	1034	2014	990.1		
2009	876.1	2015	926		
2010	1001	2006-2015 Normal	965.36		

In addition to the 1981-2010 EC normal data, annual precipitation totals from 2005-2015 were also used to calculate the 10-year normal precipitation using the most recent available data, to account for potentially changing climatic conditions. The 10-year normal precipitation between 2006 and 2015 was 965.36 mm, comparable with the 1981-2010 normal.

In their water balance calculations, BGC cited the Eastern Ontario Water Resource Study, prepared by CH2M Hill in 2001. The CH2M Hill study indicates an average evapotranspiration rate of 45.2% of the total amount of precipitation, with a water surplus of 54.8% of the total amount of precipitation. BGC/CH2M Hill further indicate that 94% of the water surplus will run off, while 6% of the surplus will infiltrate. For the purposes of consistency, these assumptions have been used in our water balance calculations for this assessment.

The theoretical quarry pumping requirements will be the total water surplus over the area of the quarry extraction area footprint, plus the surface water runoff from the surrounding catchment area. It is assumed that all water which falls directly on the quarry extraction area footprint will be captured in the quarry sump, and will not infiltrate/recharge. Based on these assumptions, the following water balance is calculated for the existing quarry footprint and the extraction areas of the proposed MacLeod III, MacLeod IV, and MacLeod V quarries. It is noted that under full extraction, the MacLeod I through V properties will all represent a single extraction area, with runoff directed to a single quarry sump.

Table 4 Water Budget – Current Conditions				
	2013	2014	2015	EC Normal
Total precipitation (mm)	978.4	990.1	926	1011.5
Evapotranspiration (mm)*	442.2	447.5	418.6	457.2
Water Surplus, mm	536.2	542.6	507.4	554.3
Runoff (94% of Surplus), mm	504.0	510.0	477.0	521.0
Groundwater Recharge (6% of Surplus), mm	32.2	32.6	30.4	33.3
Area of Quarry Footprint (m²)	329,000	329,000	329,000	329,000
Theoretical inflow to quarry sump from precipitation minus evapotranspiration directly to quarry footprint (m³)	176,410	178,515	166,935	182,365
			T	
Catchment Area of Quarry, minus footprint (m²)	720,000	720,000	720,000	720,000
Theoretical inflow to quarry sump from runoff from surrounding catchment area (m³)	362,880	367,200	343,440	375,120
Total theoretical inflow to quarry sump (m ³)	539,290	545,715	510,335	557,485
Actual reported annual pumping from quarry sump (m³)	817,007.5	862,963	786,407.6	-
Reported pumping as percentage of theoretical inflow (%)	151%	158%	154%	154.3%

It is noted that the above calculations underestimate the amount of water actually handled by the quarry sump. Reasons for this include the contribution of groundwater infiltration from the quarry walls to the quarry sump. Although observed seepage from quarry faces is minimal, significant seepage is observed along the west quarry wall from the plant to a distance of approximately 670 m south. This seepage area corresponds to the location of the drainage ditch into which the quarry sump discharges, which runs parallel to the west quarry face for a distance of approximately 670 m before turning west (at which point, seepage at the quarry wall ceases to be observed). The seepage is observed to occur at the contact of the Bobcaygeon and Upper Gull River formations. Given that the seepage is likely associated with the ditch into which the quarry discharges, some recirculation of water is likely occurring. Additional minor seepage points were observed in the southeast portion of the quarry.

Also, the above calculations may overestimate evapotranspiration within the quarry footprint. While the evaporation component is likely consistent with surrounding areas, plant-related transpiration is likely lower due to the general lack of vegetation within the quarry footprint.

Table 5 Water Budget – Full Quarry Development	
	EC Normal 1981-2010
Total precipitation (mm)	1011.5
Evapotranspiration (mm)*	457.2
Water Surplus, mm	554.3
Runoff (94% of Surplus), mm	521.0
Groundwater Recharge (6% of Surplus), mm	33.3
Area of Quarry Footprint, including MacLeod II, III, IV, and V extraction areas (m ²)	2,397,800
Theoretical inflow to quarry sump from precipitation minus evapotranspiration directly to quarry footprint (m³)	1,249,254
Catchment Area of Quarry, minus footprint (m²)	861,000
Theoretical inflow to quarry sump from runoff from surrounding catchment area (m³)	448,581
	1
Total theoretical inflow to quarry sump (m ³)	1,697,835
Correction factor based on 2012-2015 data	154.3%
Corrected theoretical inflow to quarry sump (m³)	2,619,759

It is noted that a Permit To Take Water will be required for all takings from the quarry sump. As quarry extraction continues, continued recording of dewatering volumes will allow for further refinement of dewatering estimates under full extraction.

2.5 Geology and Hydrogeology

The following sections provide a general description of the geology and hydrogeology of the subject site.

2.5.1 Surficial Geology

According to Chapman and Putnam (1984), the site is located in the Glengarry Till Plain physiographic region, characterized by undulating to rolling topography with morainic ridges and intermittent drumlins, with intervening clay flats and swamps. This description is generally consistent with our observations of the site. Based on surficial geology mapping completed by the Ontario Geological Survey, overburden soils in the vicinity of the site consist of glacial till.

An extensive review of surficial geology was provided in BGC's 2012 report for the MacLeod IV property. According to the BGC report, an area of relatively thin overburden soils/shallow bedrock is present in the central portion of the site, running in an east/west direction. The majority of this area is within the extraction footprint of the MacLeod I quarry.

BGC identified two glacial till units in the vicinity of the subject site: the Fort Covington Till (a dense boulder till with a silty sand matrix, generally on the order of 8-12 m thick) and the underlying Malone Till (a very dense and compact till with a sandy silt matrix). An intermittent gravel layer was identified between the two till units. In the southern portions of the site, the BGC report indicated that silt and clay deposits associated with the Champlain Sea were identified.

2.5.2 Bedrock Geology

In addition to a review of the available literature, the presence of the MacLeod I Quarry has allowed for a detailed assessment of bedrock on-site. Bedrock units identified at the site include the Bobcaygeon Formation (uppermost unit), underlain by the Gull River Formation (accounting for the majority of rock quarried at the site), underlain by the Rockcliffe Formation. Bedrock in the area of the subject site is observed to dip in a southerly direction from the central portion of the site.

The Bobcaygeon Formation at the site consists of medium to dark brown, microcrystalline to fine crystalline, thick to massively bedded fossiliferous limestone. Limestone of the Bobcaygeon Formation is observed in the northwest corner of the active extraction area on the MacLeod I property, with a thickness of approximately 4.5 m. The lower contact of the Bobcaygeon Formation with the underlying Gull River formation is described by BGC as sharp and slightly irregular.

Limestone of the Gull River Formation composes the majority of the active quarry profile. The Gull River limestone is commonly divided into an upper and lower member. The upper 9 m of the Gull River Formation at the site consists of light grey microcrystalline to finely crystalline, thin bedded limestone with shaly partings. The lower portion of the Gull River Formation at the site is described as finely crystalline, thinly to thickly bedded limestone, medium to dark grey in colour, with intraclastic beds and common stromatolite features. Greenish grey to brown beds of finely crystalline dolostone are observed in the lower Gull River Formation.

Based on elevations, the Shadow Lake and Rockcliffe formations may be exposed at the base of the quarry sump. The Shadow Lake formation is reportedly difficult to discern in Eastern Ontario, and when encountered, consists of sandy dolostone with shaly partings and interbedded quartz sandstone, and varies in thickness from 2.5 to 2.8 m. The Rockcliffe Formation consists of interbedded quartz sandstone and shale, and was reportedly encountered in several test wells at the site.

2.5.3 *Pop-Ups*

The phenomenon referred to as a "pop-up" occurs as a result of stress relief observed in quarry floors following the removal of overlying strata and the corresponding stress exerted. Pop-ups have historically been documented on the quarry floor at the MacLeod I property, and are discussed in depth in the BGC report (BGC, 2011). Pop-ups are not expected to significantly affect site hydrogeology.

2.5.4 Regional Hydrogeology

In general, regional hydrogeology in the vicinity of the site is considered to be a reflection of local topography. Regional groundwater flow is therefore expected to be in a southerly direction towards the St. Lawrence River.

For specific details on regional hydrogeology, a search of the water well database maintained by the Ontario Ministry of the Environment and Climate Change (MOECC) was conducted for properties within 500 m of the site. Given the locations of MacLeod III and MacLeod V on opposite sides of the site, the 500 m offset was developed based on the entire footprint of the MacLeod Quarry properties for the purpose of obtaining a sitewide overview of well record data. A total of 82 MOECC well records were returned within this search area. Well locations are shown on Figure 2. A summary of well record data is provided in Table 2.

A 500 m offset was considered appropriately conservative based on BGC's conclusion that the radius of effect of the quarry on surrounding wells was approximately 150 m in the bedrock aquifer and 35 m in the overburden aquifer. This conclusion is revisited in subsequent sections based on current data.

It is noted that some variability in data quality is inherent in MOECC well records. For instance, wells where the exact location is not known beyond lot and concession number are plotted in the middle of the given lot on MOECC's online mapping tool. Furthermore, descriptions of a given geological formation may vary significantly between drillers. McIntosh Perry has accounted for these features whenever possible, and overall, accounting for its limitations, it is our opinion that the MOECC well record data set provides a useful tool for understanding regional hydrogeology in the vicinity of the site.

Based on the water well record review, generalized stratigraphy in the vicinity of the subject site consists of topsoil or loam, underlain by clay, underlain by material resembling glacial till (alternately described as till, hardpan, or a combination of clay, sand, and boulders), underlain by limestone bedrock. An intermittent gravel layer was identified at various depths within the glacial till layer or between the till and the bedrock. Where encountered, the gravel layer varied in depth between 7.6 and 19.2 m, and varied in thickness between 0.6 and 7.9 m. The gravel layer was not spatially contiguous in the areas where it was identified.

Water was generally reported as encountered within the limestone bedrock layer, at depths between 8.8 and 35.1 m. Based on elevation contours in the vicinity of the site, ground surface elevation varies between approximately 55 and 75 m ASL, corresponding to water-bearing intervals between 20 and 65 m ASL. Static water levels were between 0.3 and 24.8 m below ground surface, and were generally less than 10 m below ground surface. Reported recommended pumping rates varied between 14 and 364 L/min, and were generally less than 60 L/min.

A review of the water well record data indicated no specific correlation between recommended pumping rates and elevation of water-bearing interval. However, when considered in terms of stratigraphy, water-bearing intervals were generally encountered in the upper/shallow limestone bedrock. It is noted that water wells were completed where water was encountered in sufficient quantities on a well-by-well basis, not necessarily to target any specific fracture zone or stratigraphic interval.

Detailed groundwater contour mapping was not completed using MOECC well records, given the temporal variability in water level measurements and the limitations inherent in interpreting ground surface elevations from topographic mapping contours in lieu of an elevation survey. However, the effect of the development of the MacLeod I quarry on surrounding water wells appears to be limited. This may be accounted for by the fact that some of the wells were drilled before the quarry was as fully developed as it is now, and by the separation distance between certain wells and the quarry limits. However, as discussed above, the fact that the majority of wells are completed in shallower formations with better water production, as opposed to the deeper formations with limited water production in which the quarry is completed, likely accounts for the limited effect of the quarry on surrounding wells.

2.5.5 Site Hydrogeology

In addition to the water well record data discussed above, significant site-specific data are available in the form of test wells drilled on the MacLeod Quarry properties by BGC and GRI at the direction of Cornwall Gravel, as well as water supply wells drilled on-site to service quarry buildings and operations. Stratigraphic logs were available for review, and are appended to this report. Furthermore, a groundwater level monitoring program has been in place at the site since 1998, and water level data are appended to this report.

The drilling methods and construction details of the test wells and water supply wells, along with water level measurements and historic hydraulic conductivity testing results, are discussed in depth in Section 3.1 below (On-Site Monitoring Network) and are summarized in the appendices of this report. In general, test wells were drilled and completed at depths that would allow for the assessment of hydrogeological conditions at an elevation corresponding to the maximum depth of the quarry, as well as at depths where surrounding water wells were likely to be screened. As such, several wells drilled under the supervision of GRI in 1994 were instrumented with piezometers at multiple depths intended to isolate fracture zones at these respective intervals. Monitoring well TW8 was also specifically drilled to intercept the shallow bedrock interval in which surrounding water wells were completed.

Based on conditions encountered during drilling and on the results of hydraulic conductivity testing undertaken by GRI and BGC, areas of higher hydraulic conductivity were encountered in the shallow bedrock near the overburden interface. Hydraulic conductivity at depth was generally lower. This is reflective of seepage observed on the quarry face, as well information obtained from surrounding well records. Hydraulic conductivities reported by BGC varied between 8×10^{-5} m/s and 4×10^{-9} m/s.

2.5.6 Recharge and Discharge Areas

In general, groundwater recharge via precipitation and infiltration is interpreted to be occurring in upland areas, while groundwater discharge is interpreted to occur in low/wet areas. The quarry on the MacLeod I property is interpreted to represent a local groundwater discharge area, with groundwater from the shallow bedrock observed to be discharging at the quarry faces. It is noted that the majority of water collected in the quarry sump is considered to be surface water/runoff.

Detailed investigations have not been completed specifically regarding recharge or discharge conditions in the vicinity of the South Raisin River, which crosses the southwest portion of the MacLeod III property. However, based on our observations and on site topography, the South Raisin River may be considered a localized groundwater discharge area for groundwater in shallow overburden soils. It is noted that the MacLeod Quarry has been in operation for several decades, and water pumped from the quarry eventually reaches the South Raisin River via surface drainage features. It is possible that a component of this pumped water recharges upgradient of the South Raisin River and enters the river as baseflow. If pumping practices are not anticipated to change as part of the proposed quarry development, the impacts on the South Raisin River are anticipated to be minimal in the short to medium term horizon.

The overburden soils identified at the site, i.e. glacial tills with a matrix of coarser-grained materials such as sand, as well as the gravel layer observed between the Malone and Fort Covington Tills, are interpreted to be conducive to groundwater recharge. However, in portions of the subject site, an intervening layer of silty clay or glacial till with a silty clay matrix has been observed overlying the bedrock. As such, it appears that groundwater recharge to the shallow bedrock/overburden interface zone utilized by many of the surrounding wells may be occurring on topographical high areas or areas with thinner overburden soils located in upland areas off-site. Further site-specific details are provided in subsequent sections.

2.5.7 Hydrogeologically Sensitive Features

There are currently no significant wetlands or Areas of Natural and Scientific Interest (ANSIs) in the vicinity of the Site which may be considered hydrogeologically sensitive features. It is noted that the South Raisin River, which crosses the southwest portion of the MacLeod III property, may be considered a groundwater discharge area and/or a receiver of surface water flow originating as pumped water from the quarry. If pumping practices are not expected to change significantly following the development of the MacLeod III and V properties, no adverse impacts on the South Raisin River are expected. Based on a review of overburden soil conditions, wetland/poorly drained areas in the vicinity of the quarries are interpreted to be a result of poor surficial drainage and low-permeability underlying soils, and the interaction of groundwater in the bedrock with wetland features is expected to be negligible.

The long-term effects on surface water bodies, wetlands, and surrounding water wells are discussed in subsequent sections of this report.

2.5.8 Potential Sources of Contamination

Detailed field surveys of the area were conducted in combination with a review of maps, zoning information, and the completion of hydrogeological field programs for the subject property. The site and the adjacent lands are located predominantly in a rural area, with residential and commercial development along major roads, including automotive service garages and an automotive salvage yard. Although these properties do have the potential to result in environmental impacts, their separation distances from the MacLeod quarry properties and their limited areal extents relative to quarry operations are considered to limit the degree of potential impacts.

Potential sources of contamination on the subject property include nutrients from existing septic systems and farming operations, and hydrocarbons from blasting agents, lubricants, and fuels used on-site. Hydrocarbon contamination is considered to be limited by best management practices for blasting, fuelling, and equipment maintenance used on-site. A 30 m buffer will be maintained between farming operations and the quarry face at all times.

All water which is discharged from the subject site undergoes regular water quality testing to ensure that offsite water quality meets regulatory requirements; this practice is expected to continue for the development of the MacLeod III and V properties.

3.0 SITE INVESTIGATION

3.1 Existing Monitoring Network

Since 1994, an extensive network of groundwater monitoring wells has been drilled on the MacLeod Quarry properties, for the purposes of ARA applications for the MacLeod II and IV properties, and for the purposes of providing long-term groundwater level monitoring at the site. Well locations are shown on Figure 4. A brief description of the wells comprising the existing monitoring network is provided below. Well logs are provided in Appendix A.

3.1.1 MacLeod House

The MacLeod House well was historically present adjacent to the former MacLeod residence on the MacLeod I quarry property. This well was reportedly initially 29.6 m deep, but conversations with the well driller indicated that it had been deepened twice since drilling and was 43.7 m deep in 1995. It is our understanding that this well has since been mined out by quarry operations.

3.1.2 Test Well 1 (TW1)

Test Well 1 was located at the southeast corner of the MacLeod I property, and was drilled under the supervision and direction of GRI in 1994. According to BGC's report, the well was drilled using water rotary methods. Approximately 4.57 m of overburden was encountered, consisting of 1.5 m of clay overlying silty sand till. Groundwater was encountered in the overburden at a depth of approximately 3 m. A length of steel casing (6.1 m) was grouted in place using cement grout, sealing off the overburden layer and shallow bedrock (overburden interface aguifer), and the hole was advanced into bedrock.

Competent limestone of the Bobcaygeon Formation was encountered from 4.57 to 8.53 m (approximately 48.9-52.8 m ASL), and the borehole was advanced through the upper and lower Gull River Formations to a depth of 60.96 m (to approximately -3.6 m ASL). Distinct soft zones were encountered at various depths as noted on the borehole log, appended to this report, and the cumulative well yield upon completion of the well was less than 9 L/min, suggesting that no significant water-bearing fractures were encountered.

In 1995, multi-level piezometers TW1-1 (deep), TW1-2 (intermediate), and TW1-3 (shallow) were installed in TW1 in order to isolate specific intervals where soft zones/potential fractures were encountered. These intervals are listed in Table 1, appended to this report. Slug testing of these specific intervals was completed, and slug test results are summarized in Table 4. Groundwater level monitoring in the multi-level piezometers is ongoing.

Test Well 1 was mined out by quarry operations between 2002 and 2003.

3.1.3 Test Well 2 (TW2)

Test Well 2 is located on the west-central portion of MacLeod III, and was drilled under the supervision and direction of GRI in 1994. The well was drilled using water rotary methods. Approximately 2.13 m of overburden was encountered, consisting of bedrock slabs interbedded with silty sand. Groundwater was encountered in



shallow bedrock at a depth of approximately 3 m. A length of steel casing (6.1 m) was grouted in place using cement grout, sealing off the overburden interface aquifer, and the hole was advanced into bedrock.

Competent limestone of the Bobcaygeon Formation was encountered from 2.13 to 4.27 m, and the borehole was advanced through the upper and lower Gull River formations to a depth of 60.96 m. Distinct soft zones were encountered at various depths as noted on the borehole log. Groundwater seepage was noted at depths of 34.14 m, 46.63 m, and 46.84 m, and the total yield of the well upon completion was less than 35 L/min.

As part of this work program, TW2 was instrumented with three (3) multi-level piezometers on December 20, 2016 by Bourgeois Well Drilling. The screened intervals of these piezometers are listed in Table 1, appended to this report, and are intended to capture water-bearing zones noted during the initial drilling.

3.1.4 Test Well 3 (TW3)

Test Well 3 was located along the western boundary of the MacLeod III property to the north of TW2, and was drilled under the supervision and direction of GRI in 1994. According to BGC's report, the well was drilled using water rotary methods. Approximately 11.28 m of overburden was encountered, silty sand till transitioning to dense sandy silt with depth. Groundwater was encountered in the overburden at a depth of approximately 3 m. A length of steel casing (12.8 m) was grouted in place using cement grout, sealing off the overburden layer and shallow bedrock (overburden interface aquifer), and the hole was advanced into bedrock.

Competent limestone of the Bobcaygeon Formation was encountered from 11.28 to 14.33 m (54.1 to 57.2 m ASL), and the borehole was advanced through the upper and lower Gull River Formations to a depth of 65.84 m (2.63 m ASL), and into the underlying Rockcliffe Formation, encountered from 65.84 to 67.06 m (2.63 to 1.41 m ASL). Distinct soft zones were encountered at various depths as noted on the borehole log, appended to this report, and the cumulative well yield upon completion of the well was less than 30 L/min, suggesting that no significant water-bearing fractures were encountered. Groundwater seepage was noted at 40.54 m BGS (28.46 m ASL) and at 57.20 and 58.52 m BGS (8.76 and 7.48 m ASL), with a hydrogen sulphide odour noted in water from the upper fracture, and water from the lower fracture having a black appearance.

In 1995, multi-level piezometers TW3-1 (deep), TW3-2 (intermediate), and TW3-3 (shallow) were installed in TW3 in order to isolate specific soft zones. These intervals are listed in Table 1, appended to this report. Slug testing of these specific intervals was completed, and slug test results are summarized in Table 4. Groundwater level monitoring in the multi-level piezometers is ongoing.

3.1.5 Test Well 4 (TW4)

Test Well 4 is located at the southeast corner of the MacLeod III property, and was drilled under the supervision and direction of GRI in 1994. According to BGC's report, the well was drilled using water rotary methods. Overburden soils consisted of approximately 5.18 m of silty sand overlying approximately 0.5 m of sand and gravel. Groundwater was encountered in the overburden at a depth of approximately 2 to 3 m (54.8 to 55.8 m ASL), with the sand and gravel layer producing approximately 13 to 23 L/min. A length of steel casing (6.1 m) was grouted in place using cement grout, sealing off the overburden layer and shallow bedrock (overburden interface aquifer), and the hole was advanced into bedrock.

Competent limestone of the Bobcaygeon Formation was encountered from 5.18 to 12.8 m (45.0 to 52.62 m ASL), and the borehole was advanced through the upper and lower Gull River Formations to a depth of 60.96 m (-3.16 m ASL). Distinct soft zones were encountered at various depths as noted on the borehole log, appended to this report, and the cumulative well yield upon completion of the well was less than 14 L/min, suggesting that no significant water-bearing fractures were encountered at depth.

In 1995, multi-level piezometers TW4-1 (deep), TW4-2 (intermediate), and TW4-3 (shallow) were installed in TW4 in order to isolate specific soft zones. These intervals are listed in Table 1, appended to this report. Slug testing of these specific intervals was completed, and slug test results are summarized in Table 4. Groundwater level monitoring in the multi-level piezometers is ongoing.

3.1.6 Test Well 5

Test Well 5 was drilled on the northwestern side of the MacLeod IV property in February 2, 2000, by Gilles Bourgeois Well Drilling. Overburden soils consisted of 11.9 m of glacial till (extending to 59.9 m ASL). The well was advanced to a total depth of 23.8 m (48.0 m ASL) by rotary methods, following which the well was developed with a cable tool rig. A final well yield of 20 IGPM (approximately 91 L/min) was reported by the driller. This well was cased to 12.5 m and left as an open hole between 12.5 and 23.8 m (48.0 to 59.3 m ASL).

3.1.7 Test Well 6-1

Test Well 6-1 was drilled near the southern limit of the MacLeod I property in June 2005, with the intention of replacing TW1, which had been mined out by quarry operations. Overburden soils consisted of glacial till to a depth of 5.18 m (54.39 m ASL). The well was advanced to a final depth of 91.44 m (-31.87 m ASL), with a reported well yield of 2 IGPM (9.1 L/min). The well was cased to 7.3 m, effectively isolating the overburden/shallow bedrock interface aquifer at this location.

3.1.8 Test Well 6-2

Test Well 6-2 was drilled adjacent to Test Well 6-1, for the purpose of monitoring groundwater conditions in the overburden/bedrock interface aquifer. Drilled by Bourgeois in June 2011, this well (as with Test well 7-2 and Test Well 8) was drilled using methods consistent with domestic water wells in the surrounding area. The well was cased to 6 m, with the casing seated in the upper bedrock, and drilled to a total depth of 12.1 m (47.47 m ASL), and developed for several hours. The well yield was reportedly 114 L/min.

3.1.9 Test Wells 7-1 and 7-2

Test Wells 7-1 and 7-2 were drilled in the southeast corner of the MacLeod IV property. Initially, TW7-1 (deep) was drilled, with TW7-2 (shallow) subsequently drilled 10 m away. Approximately 7.63 m of glacial till overburden were encountered. TW7-1 was cased to 9.7 m and drilled to 79.24 m (-15.21 m ASL), and yielded approximately 9 L/min upon completion. TW7-2 was cased through the overburden only (leaving the shallow bedrock portion of the overburden/bedrock interface aquifer uncased), drilled to 12.19 m (51.38 m ASL), developed for three hours following drilling, and yielded approximately 90 L/min.

3.1.10 Old Shop Well

The Old Shop well, located on the northern portion of the MacLeod I property, was reportedly drilled in the 1980s. The well was drilled to a depth of 91.4 m (-16.89 m ASL), with an estimated yield of 4 to 9 L/min. No further information on this well was available.

3.1.11 New Shop Well

The New Shop Well is located on the northern portion of the MacLeod I property, and was drilled in 2006. Approximately 14.02 m of overburden was encountered, consisting of 12.8 m of glacial till (to 61.75 m ASL) underlain by a layer of gravel 1.22 m in thickness (to 60.53 ASL). The well was cased through the overburden and drilled into bedrock to a total depth of 30.48 m (44.07 m ASL). Initially, a well yield of less than 2 L/min was reported. However, after 3 days of development (surging) with a cable tool rig, the well eventually produced 40 L/min.

3.1.12 Scale House Well

The Scale House Well was reportedly drilled in 2004. Approximately 14 m of overburden was encountered (to 59.98 m ASL), consisting of 3 m of fill underlain by glacial till. The well was cased through overburden and advanced into bedrock to a depth of 24.4 m (49.58 m ASL). The reported well yield was 60 L/min, inferred to be predominantly from the overburden/shallow bedrock interface aquifer.

3.1.13 Lab Well

The Lab Well was drilled in 2011. Approximately 14.6 m of overburden was encountered, consisting of 13.1 m of glacial till (to 60.27 m ASL) underlain by 1.5 m of gravel (to 58.77 m ASL). The well was cased through the overburden to a depth of 14.6 m and advanced into bedrock to a depth of 18.3 m (55.07 m ASL). The reported well yield was 36 L/min, inferred to be predominantly from the overburden/shallow bedrock interface aguifer.

3.1.14 Test Well 8

TW8 was drilled in 2016, and is located in the northwest corner of MacLeod V, along Headline Road. Approximately 14.9 m of overburden was encountered, consisting of 9.7 m of glacial till (to 62.89 m ASL) underlain by 5.2 m of gravel (to 57.69 m ASL). The well was cased through the overburden to a depth of 14.9 m and advanced into bedrock to a depth of 18.9 m (53.69 m ASL). The reported well yield was 9.1 L/min. However, the construction details of TW8 are consistent with surrounding domestic water wells completed in the overburden/shallow bedrock interface aquifer.

The monitoring network, as shown above, provides coverage of the overburden/bedrock interface aquifer in which the majority of surrounding water supply wells are screened, as well as deeper bedrock aquifer units extending to depths below the proposed maximum extraction limit of the MacLeod III and V quarries. Additional monitoring wells were installed as a component of our 2016 investigation, some of which were screened in the gravel unit encountered between the Fort Covington and Malone tills. The purpose of the 2016 wells was to provide additional coverage in areas where data gaps were identified or where monitoring data

would be useful to assess quarry impacts, and to provide pumping and observation wells for pump tests specific to the MacLeod III and V properties.

3.2 2016 Drilling and Monitoring Well Installation Program

Between August and October 2016, Cornwall Gravel and McIntosh Perry supervised the installation of eight (8) additional monitoring wells, for the purpose of characterizing hydrogeological conditions on the MacLeod III and V properties. Details of the drilling and monitoring well installation program are detailed below. Borehole logs are appended to this report.

3.2.1 TW9-1 and TW9-2

TW9-1 was drilled on August 29, 2016, along the eastern site boundary of MacLeod III, by Bourgeois Well Drilling of Crysler, Ontario, under the supervision of McIntosh Perry and Cornwall Gravel personnel. The well was drilled using air rotary methods. Stratigraphy consisted of overburden (silty clay with some sand and gravel, inferred glacial till) to a depth of 12.8 m (54.43 m ASL), followed by limestone bedrock to a depth of 109.73 m below existing grade (-42.5 m ASL). The purpose of this well was to represent hydrogeological conditions along the entire depth of the proposed quarry. Even with proposed deepening of the existing license being considered by Cornwall Gravel, the well depth of 109.73 m is deeper than the proposed lower limits of the quarry. The well was cased through the overburden layer and into the shallow bedrock to a depth of 13.4 m. No significant water-bearing zones were encountered.

TW9-2 was drilled adjacent to TW9-1 to assess hydrogeological conditions at the shallow bedrock interval in which surrounding water wells are screened. The well was drilled on August 30, 2016, using air rotary methods, by Bourgeois. The well was cased to 13.4 m and drilled into bedrock to a total depth of 15.24 m. On October 11, 2016, the well was deepened to 18.29 m (48.77 m ASL) and developed using a cable tool drill rig. Upon completion, the reported well yield was less than 5 L/min, according to Bourgeois.

3.2.2 TW10

TW10 was drilled on August 31, 2016, on the northeast corner of the MacLeod V property, by Bourgeois under the supervision of Cornwall Gravel personnel. The well was drilled using air rotary methods. The purpose of this well was to represent hydrogeological conditions along the entire depth of the proposed quarry, and as with TW9-1, the well was drilled deeper than the proposed lower limits of the quarry. Stratigraphy consisted of glacial till consisting of a silty clay to sand matrix with gravel and boulders, with limestone bedrock encountered at 11.58 m (58.73 m ASL). The hole was cased through overburden to a depth of 13.7 m, and drilled into bedrock to a depth of 111.86 m (-41.55 m ASL). Upon completion, the reported well yield was approximately 23 L/min, according to Bourgeois.

3.2.3 TW11-1, TW11-2, and TW11-3

TW11-2 was drilled on August 30, 2016, on the northwest corner of the MacLeod III property, by Bourgeois under the supervision of Cornwall Gravel personnel. The well was drilled using air rotary methods. The purpose of this well was to intercept the shallow bedrock interval in which surrounding water wells were screened.

Stratigraphy consisted of till to 6.7 m (66.76 m ASL), underlain by a gravel layer between 6.7 and 8.8 m (66.76 to 64.66 m ASL), underlain by silt to 16.2 m (57.26 m ASL). The hole was cased to 16.3 m, and drilled into bedrock to a total depth of 19.2 m. On October 11, 2016, the well was deepened to 19.35 m (54.11 m ASL) and developed using a cable tool drill rig. Upon completion, the reported well yield was approximately 91 L/min, according to Bourgeois.

TW11-1 was drilled on October 3 and 4, 2016, by Bourgeois under the supervision of Cornwall Gravel personnel. The well was drilled using mud rotary methods through overburden and air rotary methods through bedrock. The purpose of this well was to represent hydrogeological conditions along the entire depth of the proposed quarry, and as with TW9-1 and TW10, the well was drilled deeper than the proposed lower limits of the quarry. Overburden stratigraphy was consistent with TW11-2. The well was cased through overburden to a depth of 20.12 m, and the well was drilled through bedrock to a total depth of 116.4 m (-42.87 m ASL). Upon completion, the reported well yield was less than 5 L/min, according to Bourgeois.

TW11-3 was drilled on October 19, 2016, by CCC Geotechnical and Environmental Drilling (CCC) of Ottawa, Ontario, under the supervision of Cornwall Gravel personnel. The well was drilled using water rotary methods, with soil samples obtained by a split spoon sampler. The purpose of this well was to intercept the gravel layer identified in TW11-2. Soil sampling confirmed that stratigraphy was consistent with TW11-2.

The well was drilled to a total depth of 9.1 m (64.31 m ASL), with the interception of the gravel layer confirmed by split spoon samples. A 2" PVC monitoring well was installed in TW11-3, with a screened interval of 6.1-9.1 m. Instead of a sand pack, the gravel formation caved around the monitoring well screen upon the withdrawal of the casing to a depth of 5.49 m. The annulus was backfilled with bentonite pellets to ground surface. The monitoring well was equipped with a 4" square steel stickup protective casing.

3.2.4 TW12

TW12 was drilled on October 18 and 19, 2016, by CCC, under the supervision of McIntosh Perry and Cornwall Gravel personnel. The purpose of the well was to assess the lateral extent of the gravel layer observed at TW11-2, and to assess groundwater conditions in the shallow bedrock aquifer. The well was initially drilled using hollow-stem augers, and was advanced using water rotary methods when the presence of a bouldery till layer prevented further augering. Samples were obtained by a split spoon sampler. Stratigraphy consisted of glacial till, consisting of a silt to sandy silt matrix with gravel and boulders. The gravel layer identified in TW11-2 and 11-3 was not identified in TW12.

Bedrock was encountered at a depth of 14.3 m (57.74 m ASL), and the well was advanced into bedrock using a wireline diamond coring system to a depth of 18.24 m (53.80 m ASL). A 2" PVC monitoring well was installed in TW12, with a screened interval of 15.19 to 18.24 m. The borehole annulus above the screen was backfilled with bentonite pellets or with native material which caved upon the removal of the casing. The monitoring well was equipped with a 4" square steel stickup protective casing.

3.2.5 TW13

TW13 was drilled on October 11, 2016 by Bourgeois under the supervision of Cornwall Gravel personnel. The well was drilled along the eastern boundary of the MacLeod V property, for the purpose of providing additional assessment of groundwater conditions in the shallow bedrock aquifer between TW9 and TW10. The well was drilled using air rotary methods. Stratigraphy consisted of till with a 0.3 m layer of gravel observed overlying the limestone bedrock. Bedrock was encountered at 14.3 m (58.42 m ASL), and steel casing was advanced to 15.24 m and cemented in place. The well was drilled to 18.29 m. On October 12, the well was developed and deepened to 21.34 m (51.38 m ASL) with a cable tool rig. The well yielded 22.8 L/min according to Bourgeois Well Drilling.

3.3 Groundwater Level Monitoring

Groundwater level monitoring has been undertaken at on-site monitoring wells since 1995. Wells have been added to the groundwater level monitoring program as they have been drilled. In addition to providing supporting data for the current and previous quarry expansion applications under the Aggregate Resources Act, water level data has been used to support Permit To Take Water (PTTW) applications for the site and to assess long-term hydrogeological trends at the site and potential well interference complaints.

Water level data are summarized in Table 3, appended to this report. In the majority of cases, impacts of quarry dewatering on surrounding monitoring wells has been minimal. Variations in water levels are consistent with varying seasonal and annual climatic conditions and, in the case where the wells monitored are used for water supply purposes as well (i.e. New Shop Well, Old Shop Well, Lab Well, and Scale House Well), by water usage.

Based on the results of the December 2016 groundwater monitoring event, groundwater elevations at the site can be summarized as follows:

- Groundwater levels across the entire property vary between 1.1 m and 33.48 m BGS (35.39 and 71.84 m ASL).
 - Groundwater elevations in wells completed in the shallow bedrock unit (TW3-2, TW3-3, TW4-2, TW4-3, TW5, TW6-2, TW7-2, New Shop Well, Lab Well, Scale House Well, TW8, TW9-2, TW11-2, TW12, and TW13) vary between 1.1 and 14.03 m BGS (44.1 and 71.84 m ASL)
 - Groundwater elevations in wells completed in the deep bedrock unit (TW3-1, TW4-1, TW6-1, TW7-1, Old Shop Well, TW9-1, TW10, TW11-1) vary between 3.04 and 33.48 m BGS (35.39 and 67.72 m ASL)
 - The groundwater elevation in TW11-3, completed in the overburden, was 2.09 m BGS (71.32 m BGS)
- Groundwater levels at the MacLeod III property (TW8, TW9-1, TW9-2, TW10, and TW13) vary between 3.04 m and 19.53 m BGS (48.15 and 68.11 m ASL).

- Groundwater elevations in wells completed in the shallow bedrock unit (TW8, TW9-2, and TW13) vary between 5.18 and 7.13 m BGS (60.57 and 68.11 m ASL)
- o Groundwater elevations in wells completed in the deep bedrock unit (TW9-1 and TW10) vary between 3.04 and 19.53 m BGS (48.15 and 67.72 m ASL)
- Groundwater levels at the MacLeod V property (TW3-1, TW3-2, TW3-3, TW4-1, TW4-2, TW4-3, TW11-1, TW11-2, TW11-3, and TW12) vary between 1.1 m and 33.48 m BGS (35.39 and 71.84 m ASL).
 - Groundwater elevations in wells completed in the shallow bedrock unit (TW3-2, TW3-3, TW4-2, TW4-3, TW11-2, and TW12) vary between 1.1 and 14.03 m BGS (44.1 and 71.84 m ASL)
 - o Groundwater elevations in wells completed in the deep bedrock unit (TW3-1, TW4-1, and TW11-1) vary between 7.93 and 33.48 m BGS (35.39 and 66.04 m ASL).
 - The groundwater elevation in TW11-3, completed in the overburden, was 2.09 m BGS (71.32 m BGS)

It is noted that prior to 2016, ground surface and top-of-casing elevations at the wells had been surveyed at different times, and in review of background data in support of this report, inconsistencies were observed. As such, all wells were re-surveyed in 2016, and stick-ups were confirmed to correlate top-of-casing/top-of-pipe and ground surface elevations. All historical data presented here have been corrected to reflect the 2016 elevations and may be inconsistent with historical measurements in reports by others prior to re-surveying. An exception is TW1, which was destroyed prior to 2016 and could not be re-surveyed.

Based on groundwater elevations measured in December 2016, groundwater contour mapping was completed for the shallow bedrock and deep bedrock units. Contour mapping indicated that groundwater elevation at the site generally reflects ground surface topography, with groundwater flowing in a southerly or southwesterly direction. Infiltration is therefore interpreted to be occurring in upland areas to the north of the site, with regional groundwater flow towards the St. Lawrence River further to the south. Groundwater flow patterns at the site are interpreted to be highly influenced by dewatering operations from the quarry. However, based on mapping, the drawdown effects of quarry dewatering are interpreted to be limited and confined to the subject site.

3.4 Hydraulic Conductivity Testing

3.4.1 Hydraulic Conductivity Testing By Others

An extensive hydraulic conductivity testing program was completed between 1995 and 2011 as a part of investigations by GRI and BGC at the subject site. The testing program included pump tests (step-discharge tests and constant discharge tests) at TW1, TW2, TW3, and TW4 prior to the installation of multi-level piezometers in TW1, TW3, and TW4, as well as slug tests at the individual piezometers installed in TW1, TW3 and TW4. A summary of the results of the hydraulic conductivity testing program is provided in Table 4, appended to this report.

In general, the hydraulic conductivity testing results were reflective of the well yields reported during drilling. Although some variability was observed in the hydraulic conductivity of the tested wells, the results of both the pumping tests and the slug tests indicated relatively low hydraulic conductivity in wells where the overburden/shallow bedrock interface aquifer was cased off or otherwise unavailable for testing. This is specifically reflected in the transmissivity results from TW7-2, the only well historically tested, which was completed specifically to intercept the overburden/shallow bedrock interface aquifer, which were significantly higher than the majority of other wells tested. Of the wells tested where the overburden/shallow bedrock interface aquifer was cased off, the highest hydraulic conductivity was observed at TW2 and TW4, based on pump tests completed on the entire open hole. Fractures along the entire open hole profile were available to contribute to the pumped volume at these wells, and as such, the transmissivity of the well profile as a whole will be controlled by the hydraulic conductivity of the fractures within the profile with the highest conductivity.

In reviewing the drawdown curves and observations made during the initial pump tests, specific information is available regarding fractures and fracture zones:

- Drawdown at TW1 accelerated below 12.00 m BGS (48.40 m ASL), suggesting a hydrogeological boundary at this depth.
- Cascading was noted during pump tests at TW2 when the water level was drawn down below 35.98 m BGS (27.12 m ASL), suggesting a contributing fracture at this location. Cascading at other intervals has been noted in TW2 when taking water level measurements.
- Cascading was noted during the pump test at TW4 when the water level was drawn below 11.72 m
 BGS (47.38 m ASL), suggesting a contributing fracture at this location.

The fourth pumping test completed at TW2 was completed following the installation of multi-level piezometers at TW1, TW3, and TW4, and water levels in these locations were monitored throughout the test. The most significant fluctuation was a drawdown of 0.48 m, observed in TW4-1 (screened interval 34.8 to 61 m BGS, -4.9 to 21.3 m ASL), located approximately 830 m to the southeast of TW2. Given that the drawdown effect was observed during pumping and water levels were observed to recover following the cessation of pumping, it can be reasonably concluded that some hydrogeological connection exists between fractures from which water was pumped during the testing of TW2, and fractures within the screened interval of TW4-1. The design of pump tests completed as part of the 2016 investigation is intended to provide further information on such connections at the site and their potential to be affected by quarry operations.

It is noted that the pump test results in BGC's report for MacLeod IV are reported in terms of transmissivity (T, m^2 /day), whereas slug tests are reported in terms of hydraulic conductivity (K, m/s). Given that:

$$T = K \times b$$

Where *b* is the thickness of the water bearing interval tested (m), testing results are summarized in Table 4 in terms of both K and T. Where not specifically stated in BGC's report, *b* is assumed to represent the screened interval of multi-level piezometers and the open hole interval for wells without piezometers installed.

Hydraulic conductivity and transmissivity results obtained by the historical testing programs varied over several orders of magnitude, reflecting the natural inherent variability of hydraulic conductivity testing in fractured rock formations and the contributions of individual fractures at the wells. Generally, hydraulic conductivity values were between 10^{-5} and 10^{-9} m/s, with the majority of values in the 10^{-7} to 10^{-8} m/s range.

3.4.2 2016 Hydraulic Conductivity Testing Program

Two (2) pump tests were completed as part of the 2016 hydraulic conductivity testing program. The purpose of these tests was to assess site-specific hydrogeological conditions at the MacLeod III and V quarries respectively, and to determine the potential for effects to surrounding hydrogeological units and water wells based on the dewatering of a vertical interval roughly corresponding to or exceeding the proposed total extraction depth of the quarries.

The first pumping test was completed on November 8, 2016. TW10 was selected as the pumping well, and TW8, TW9-1, TW9-2, and TW13 were selected as observation wells given their proximity and orientation with respect to TW10. Manual water level measurements were taken at all wells prior to the start of the test, following which all wells were instrumented with automatic groundwater level loggers (Solinst Levelloggers). A barometric logger was kept at TW10 to compensate for atmospheric conditions. The level loggers were set to record at 15 second intervals throughout the duration of the test and contained sufficient memory to record groundwater levels beyond the anticipated 95% recovery time of the test.

The pump was installed at TW10 by Bourgeois at a depth of approximately 91 m. Following the installation of the pump, the water level was allowed to stabilize for approximately 45 minutes, at which time a static water level of 3.564 m below top of casing (BTOC) was measured and the level logger was installed at approximately 80 m BTOC. The pump was started at approximately 11:14 AM, and ran at a relatively constant rate of 12-14 L/min. Minor variations in the pump flow rate were observed due to the significant head change associated with the drawdown in the well. Manual water level measurements were taken at the pumping well throughout the test. After 311 minutes of pumping, a water level of 19.96 m BTOC was observed, corresponding to a drawdown of 16.396 m.

After 311 minutes of pumping, at approximately 4:25 PM, the pump was shut down and water level recovery was monitored. Based on manual recovery data, after 36 minutes, the water level in TW10 was 8.265 m BTOC, corresponding to a recovery of 71%. Logger data could not be recovered for this well, so the exact time to 95% recovery could not be determined. Sufficient manual data had been collected for this test to allow for estimates of hydraulic conductivity.

Based on a review of level logger data from surrounding observation wells, a potential response to pumping at TW10 was observed at observation well TW8. The response was limited in magnitude (less than 10 cm), but exhibited recovery upon the cessation of pumping. Given the limited nature of the response, significant dewatering of the shallow fracture zone intercepted by TW8 was not observed due to pumping at TW10.

Based on a review of logger data from TW9-1, TW9-2, and TW13, it is unclear whether a connection exists between these wells and TW10. Although potential responses were observed in these wells upon the cessation of pumping at TW10, the potential responses did not exhibit the characteristic shape of a Theis type curve

(which would be expected by modelling fractured bedrock as equivalent porous media). These responses were limited in magnitude to less than 10 cm and are not expected to represent a significant connection between TW10 and these observation wells.

In addition to the potential response from the pumping at TW10, TW8 showed numerous apparent drawdown and recovery events during the pump test and recovery period. Given the proximity of TW8 to residential dwellings along Headline Road and the cyclical nature of the drawdown and recovery events, it is our interpretation that water levels in TW8 were being influenced by pumping from domestic wells in the vicinity. The magnitude of the drawdown and recovery events was on the order of 0.05 to 0.1 m.

Figures showing drawdown curves at TW10 and associated observation wells, for the period beginning when the pump was turned on and ending 24 hours after the pump was turned off, are appended to this report.

A summary of pumping and observation well details and drawdown information is provided below.

Table 6 Pump Test Summary – TW10 – November 8, 2016						
Well ID	Distance from Pumping Well (m)	Stratigraphic Unit	Observed Drawdown (m)			
TW10 (Pumping Well)	-	Lower Bedrock	16.396			
TW8	340	Upper Bedrock	<0.1			
TW9-I	1020	Lower Bedrock	<0.1			
TW9-II	1020	Upper Bedrock	<0.1			
TW13	370	Upper Bedrock	<0.1			

Drawdown data from TW10 were analyzed using the Theis and Cooper-Jacob methods. Estimates of saturated hydraulic conductivity varied between 2.1×10^{-6} and 3.7×10^{-7} m/s. These values were generally consistent with previous testing.

Given the shape of the potential responses at the observation wells, no hydraulic conductivity analysis was completed using data from these locations.

The second pumping test was completed on November 10, 2016. TW11-1 was selected as the pumping well, and TW11-2, TW11-3, TW12, TW3-III, and Scale House Well were selected as observation wells given their proximity and orientation with respect to TW11-1. Manual water level measurements were taken at all wells prior to the start of the test, following which all wells were instrumented with level loggers. A barometric logger was kept at TW10 to compensate for atmospheric conditions. The level loggers were set to record at 15 second intervals throughout the duration of the test and contained sufficient memory to record groundwater levels beyond the anticipated 95% recovery time of the test.

The pump was installed at TW11-1 by Bourgeois at a depth of approximately 91 m. Following the installation of the pump, the water level was allowed to stabilize and a static water level of 8.362 m BTOC was measured and the level logger was installed at approximately 80 m BTOC. The pump was started at approximately 12:30

PM, and ran at a relatively constant rate of 11-14 L/min. Minor variations in the pump flow rate were observed due to the significant head change associated with the drawdown in the well. Manual water level measurements were taken at the pumping well throughout the test. After 263 minutes of pumping, a water level of 77.685 m BTOC was observed, corresponding to a drawdown of 69.323 m.

After 263 minutes of pumping, at approximately 4:53 PM, the pump was shut down and water level recovery was monitored. Based on a review of level logger data, 95% recovery was achieved at approximately 510 minutes from the cessation of pumping.

Based on a review of level logger data from surrounding observation wells, no significant response to the pumping at TW11-1 was observed. In particular, it is noted that responses were not observed at TW11-2 or TW11-3, indicating that the vertical connection between the deep bedrock layer and the upper bedrock and gravel layers is limited. As with TW8, in the first pumping test, TW11-2 showed numerous cyclical drawdown and recovery events, suggesting the potential for influence by a domestic well or wells in the vicinity. Furthermore, a significant drawdown and recovery event was observed at the scale house well. Given the timing of this event and the fact that it did not coincide with the pump test at TW11-1, we can be reasonably certain that this event is the result of water use within the scalehouse.

A summary of pumping and observation well details and drawdown information is provided below.

Table 7 Pump Test Summary – TW11-1 – November 10, 2016							
Well ID	Distance from Pumping Well (m)	Stratigraphic Unit	Observed Drawdown (m)				
TW11-1	-	Lower Bedrock	69.323				
TW11-2	5	Upper Bedrock	<0.1				
TW11-3	5	Overburden (gravel)	<0.1				
TW12	215	Upper Bedrock	<0.1				
TW3-1	625	Lower Bedrock	<0.1				
Scale House Well	670	Upper Bedrock	<0.1				

Drawdown and recovery data from TW11-1 were analyzed using the Theis and Cooper-Jacob methods. Estimates of saturated hydraulic conductivity varied between 7.5×10^{-7} and 3.8×10^{-8} m/s. These values are generally consistent with previous testing.

It is noted that the software tool used to analyze transmissivity at the pumping wells also reports a storativity value. However, given that only pumping wells (and not observation wells) were analyzed, and no significant analyzable drawdown response was observed at observation wells, meaningful storativity values could not be calculated for the site.

3.5 Groundwater Sampling

Samples were obtained TW10 and TW11-1 at the beginning and end of the respective pump tests at these locations. The purpose of these groundwater samples was to provide a general characterization of water quality in formations which would contribute to quarry seepage upon development. Groundwater quality results are summarized in Table 3, appended to this report. Results were compared to the Ontario Drinking Water Standards (ODWS). It is noted that water samples from TW10 and TW11-1 are not considered representative of surrounding water wells (which are screened in the shallow bedrock). Laboratory Certificates of Analysis for groundwater and surface water testing conducted at the site are presented in Appendix E.

Based on test results from the water supply well on the property, the groundwater quality is moderate to fair. One Maximum Acceptable Concentrations (MACs exceedance was noted in the second sample taken from TW11-1 (total coliform count of 1, exceeding the MAC of 0). Given that this water is not intended for drinking water supply, this exceedance is not considered to represent a concern.

The following aesthetic objectives (AOs) or operational guidelines (OGs) exceedances were noted:

- Chloride exceeded the AO of 250 mg/L in the initial samples at TW10 and TW11, but was in compliance in the final samples at both locations
- Colour exceeded the AO of 5 TCU in the initial and final samples at TW10 and TW11
- Hardness was below the OG range of 80-100 in the initial sample at TW10, and above the OG range
 in the initial and final samples at TW11
- Turbidity exceeded the AO of 5 NTU in all samples
- Iron exceeded the AO of 0.3 mg/L in the initial and final samples at TW11
- Manganese exceeded the AO of 0.05 mg/L in the initial sample at TW11
- Sodium exceeded the AO of 200 mg/L in the initial samples at TW10 and TW11
- Sulphide exceeded the AO of 0.5 mg/L in all samples
- Total dissolved solids (TDS) exceeded the AO of 500 mg/L in the initial and final samples at TW10 and in the initial sample at TW11.

3.6 Domestic Water Well Survey

An extensive desktop domestic water well survey was completed as a part of this assessment, the results of which are summarized in Section 2.5.4 above. Numerous wells are present within a 500 m radius of the subject site, generally associated with residences along McConnell Avenue, Headline Road, and South Branch Road. The majority of wells reported water-bearing intervals within the shallow bedrock layer at depths between 8.8 and 35.1 m.

A review of BGC's report and conversations with Cornwall Gravel indicated that over the operating history of the quarry, three (3) neighbouring properties have brought water well problems to the attention of Cornwall Gravel, all of which were successfully remediated. Well problems consisted of sediment infilling in the water wells, and could be attributed to either age or construction of the wells. Cornwall Gravel voluntarily contributed to the remediation of water well problems. Remediation measures consisted of cleaning, surging,

and development of wells to remove fines, or if these measures were not sufficient, the well was abandoned and a replacement well was drilled. In all cases, the shallow bedrock aquifer was targeted.

It is our understanding that extraction will not occur at the MacLeod III and V quarries for several years. It is therefore recommended that at least one year prior to the development of these properties, a field water well survey be conducted to confirm which of the water well records are still in use. Further recommendations on the domestic water well survey are outlined in subsequent sections.

4.0 IMPACT ASSESSMENT

The following sections provide a summary of the potential effects of the proposed MacLeod III and V quarry expansions on the hydrogeological and hydrological setting in the vicinity of the quarry. Based on a review of existing site data and water well records, the shallow bedrock aquifer is considered the most important stratigraphic unit with respect to surrounding water supply. The impact of pumped water from the quarry on drainage patterns and surrounding surface water courses is also considered.

4.1 Hydrogeology

For the purposes of this assessment, hydrogeological units at the subject site can be generally separated into three (3) distinct units: the overburden (gravel) aquifer unit encountered at TW11, the shallow bedrock aquifer (described by BGC as the overburden interface aquifer due to the contribution of saturated overburden soils to groundwater in this aquifer), and the deep bedrock aquifer (a general term for water present in any isolated fractures throughout the entire extraction depth of the quarry).

4.1.1 Overburden (Gravel) Aquifer

Based on the results of our subsurface investigation and review of MOECC well records in the area, the gravel layer appears to be discontinuous and limited in lateral extent. The gravel layer was not significantly used by surrounding water supply wells. Although a high yield was reported for this layer (up to 900 L/min as reported by Bourgeois during the drilling of TW11-2), its shallow depth of less than 10 m make it susceptible to quality concerns, which might explain its limited use for water supply. Any incidental interception or dewatering of this layer during overburden stripping for quarry development is considered to have a negligible impact on surrounding water supply wells.

4.1.2 Overburden Interface/Shallow Bedrock Aquifer

The results of the MOECC water well record review indicated that the shallow bedrock aquifer in the area of the subject site is the most widely used by surrounding water supply wells, with the majority of the wells in the vicinity reporting water-bearing fractures between 8 and 35 m below existing grade. The upper bedrock is weathered/fractured to a greater degree than underlying bedrock, and allows for the storage and transmission of water which has infiltrated through overlying materials.

The majority of seepage into the quarry occurs in the shallow bedrock stratigraphic layer, particularly along the western face of the quarry where the ditch into which the quarry sump discharges runs parallel to the quarry face for a distance of approximately 670 m. It is our interpretation that the shallow bedrock aquifer is recharged by infiltration of precipitation or quarry discharge through overburden soils, particularly in areas where overburden is thinner or more permeable. If the quarry sump discharge location is changed as part of quarry operations, the amount of water recharging into the shallow overburden aquifer may also be affected. These effects may be mitigated by the design of quarry discharge systems to provide continued recharge for downgradient users while minimizing re-infiltration into the quarry (e.g. an infiltration trench or recharge curtain). Once quarry operations have ceased, the closure plan should be designed to limit runoff to the quarry footprint and maximize the potential for infiltration.

In addition to the existing monitoring network, this investigation has added several wells completed within the shallow bedrock aquifer at the MacLeod III and V properties. (TW9-2, TW11-2, TW12, and TW13).

The response of shallow bedrock wells to pumping tests completed as part of this assessment was observed to be minimal. Furthermore, long-term water level monitoring does not indicate significant impacts to these wells based on quarry operations. Ongoing monitoring of these wells as quarry development continues is recommended, and should provide an early indication of any potential off-site impacts to the shallow overburden aquifer.

4.1.3 Deep Bedrock Aquifer

It is noted that surrounding water wells were generally not completed in this unit, confirming the results of the pump tests that the available yield in this unit was on the low end of suitability for domestic supply. Analytical results also indicate that the water from this aquifer unit exceeds operational guidelines and aesthetic objectives per the Ontario Water Quality Guidelines, and one maximum acceptable concentration exceedance was noted in TW11-1 (a plate count of 1 total coliform unit, exceeding the MAC of 0).

Based on hydraulic conductivity testing completed as part of the current and previous assignments, as well as observations made at the quarry face, fractures and groundwater movement within the deep bedrock at the site are considered to be minimal. Furthermore, given that surrounding water wells are generally not screened in the deep bedrock, influence on surrounding wells is expected to be minimal.

In addition to the existing monitoring network, this investigation has added several wells completed within the deep bedrock aquifer at the MacLeod III and V properties. (TW9-1, TW10, and TW11-1). Ongoing monitoring of these wells as quarry development continues is recommended, and should provide an early indication of any potential off-site impacts to the shallow overburden aquifer.

4.1.4 Post-Operations Groundwater Setting

Given the size of the quarry and its depth below the water table, post-closure, it is our understanding that the quarry will be allowed to fill with water and will become essentially an artificial lake. The final level of the lake will depend on the final extraction limits of the quarry (assumed to encompass all of MacLeod I through V as a single excavation footprint), as well as the bedrock elevation around the perimeter of the quarry. Per BGC's analysis, the final elevation of the lake is expected to correspond to the elevation of a "spill point", i.e. the lowest elevation of the bedrock surface around the excavation perimeter, where the water level in the lake would cease to be confined by the bedrock and would exfiltrate outward through surrounding overburden soils. In areas of low-permeability overburden soils and a fractured upper bedrock layer, the spill point may in fact be several metres below the bedrock surface. However, for the purpose of this assessment, the spill point assumption has been retained.

The following table summarizes bedrock elevations at well locations around the extraction area perimeter:

Table 8 Bedrock Surface Elevation	ons – Extraction Area Perimo	eter Wells	
Well ID	Ground Surface Elevation (m ASL)	Depth to Bedrock (m)	Bedrock Surface Elevation (m ASL)
TW2	62.39	2.13	60.26
TW3	68.87	11.28	57.59
TW4	58.13	5.18	52.95
TW6	60.03	5.48	54.55
TW7	64.48	7.63	56.85
TW8	73.29	14.9	58.39
TW9	67.68	12.8	54.88
TW10	70.76	11.28	59.48
TW11	73.99	16.15	57.84
TW12	72.04	14.33	57.71
TW13	72.72	14.02	58.70

Based on the above table, the lowest observed bedrock elevation around the quarry perimeter is approximately 52.95 m, observed at TW4. However, extraction is not considered to extend as far south as TW4, and given the inherent uncertainty of the spill point model, a final lake level of approximately 58 m ASL is considered reasonable, as per BGC's analysis. The final water level of the lake will also be dependent on groundwater levels downgradient of the site.

Any deleterious material left in the quarry following final extraction may have the potential to impact water quality in the lake. It is therefore recommended that all equipment, materials, etc. be removed from the quarry footprint concurrently with final extraction.

4.2 Surface Water Resources

No surface water features on the site will be directly impacted by the extraction area. A portion of the Eastman Drain, a tributary of the South Raisin River, crosses the southwest portion of the MacLeod III property. An appropriate setback from this feature is to be maintained during extraction, based on floodplain analysis. While some areas currently draining into this surface water body will drain into the quarry sump as extraction progresses, water from the quarry sump is eventually pumped back out into a ditch contributing to the Eastman Drain. Potential impacts on surrounding surface water bodies can be managed to meet the requirements of the municipality, conservation authority, and other regulatory agencies.

Following final extraction, as part of quarry closure, the cessation of pumping might result in a temporary reduction of flows to surrounding surface water bodies. However, grading measures undertaken as part of quarry closure should direct surface water runoff away from the quarry footprint and towards surface water features. Capping of shallow bedrock seepage faces with lower permeability soils should limit the dewatering of overburden and shallow bedrock layers, which will contribute to the preservation of baseflow in surface water features.

There are currently no wetland features on the quarry property. It is our understanding that wetland features and/or low wet areas in the vicinity of the property are the result of poor drainage and overburden soils of low permeability. Given our review of overburden soils in the vicinity of the subject site, the interaction between wetland features and groundwater in the bedrock unit is expected to be negligible. Since there are currently no on-site wetland features, it is our opinion that any impacts to off-site wetland features can be prevented by site grading and development controls, as discussed in the Site Plans, appended to this report.

5.0 SUMMARY OF CONDITIONS

McIntosh Perry conducted a hydrogeological assessment for the proposed MacLeod III and MacLeod V quarries, located on the south side of Headline Road east of McConnell Avenue, in the Township of South Stormont (Geographical Township of Cornwall), Ontario. Cornwall Gravel currently operates the MacLeod Quarry, and is extracting limestone from the area currently designated as MacLeod I. Cornwall Gravel currently holds licenses for MacLeod II, immediately to the west of the current extraction area, and MacLeod IV, immediately to the east of the current extraction area. This hydrogeological study has been completed in support of a Class A, Category 1 and 2 License under the Aggregate Resources Act, for the properties designated as MacLeod III (immediately to the west of MacLeod II) and MacLeod V (immediately to the east of MacLeod IV).

5.1 Hydrogeology

The hydrogeology of the subject site has been extensively characterized by previous investigations by Gorrell Resources Inc. (GRI) in 1994 and by BGC Engineering in 2012. The purpose of this investigation was to provide additional site-specific characterization of the hydrogeological setting specifically at the MacLeod III and V properties.

The previous and current studies have identified three (3) major hydrostratigraphic units at the site: the overburden layer, the shallow bedrock layer (identified by BGC as the overburden interface aquifer), and the deep bedrock layer. Overburden consists primarily of glacial till, composed of a silty clay matrix with sand, gravel, and boulders, and is generally of low permeability, with the exception of a discontinuous gravel layer observed in the northwest corner of MacLeod III in the vicinity of TW11. The shallow bedrock layer/overburden interface aquifer consists of the upper several metres of bedrock, which is more fractured and permeable than the underlying bedrock. This layer is most significantly utilized by surrounding water wells in the area, and several monitoring wells on-site were completed in this layer. The deeper bedrock at the site is less permeable, and several monitoring wells on-site were completed in this layer.

A hydraulic conductivity testing program was completed at the site, consisting of one pump test at TW10 (on the MacLeod V property) and one pump test at TW11-1 (on the MacLeod III property). The pumping wells extended below the proposed base of the quarry to reflect the effects of quarry dewatering under full development. Observation wells in the deep bedrock, shallow bedrock, and overburden units were monitored. At the observation wells on MacLeod V, minor responses to pumping (10 cm or less) were observed, and did not exhibit the typical Theis curve shape but were more representative of underdamped responses in individual fractures. No significant effects were observed resulting from the pumping at MacLeod III.

5.2 Water Quality

Water samples from TW10 and TW11-1, from the beginning and end of the pumping tests at each location, were submitted for analysis of a variety of water quality parameters and were compared to the Ontario Drinking Water Standards (MOECC, 2003, amended 2006). One exceedance of Maximum Acceptable Concentration was observed (a total coliform plate count of 1 from the final sample at TW11-1, exceeding the MAC of 0). Several additional exceedances of OG and AO guidelines were also noted at both monitoring



locations. It is noted that these water quality samples were taken from a stratigraphic interval underlying the shallow bedrock aquifer in which the majority of surrounding wells are screened.

5.3 Impact Assessment

As with the current quarry, the proposed development of the MacLeod III and V properties has the potential to impact surrounding water wells completed in the shallow bedrock aquifer. To date, the quarry appears to have had minimal effects on the surrounding water wells. Water well complaints received over the years have generally been associated with sedimentation of wells, and can be attributed to age and/or well construction. These well issues have been mitigated by surging/development or drilling of replacement wells. Long-term groundwater level monitoring of on-site wells shows that lowering of water levels due to quarry dewatering has generally been minimal, and that groundwater level variation due to the inherent variability of climatic conditions is more significant.

Although a significant yield was reported in the discontinuous gravel layer at TW11, a review of surrounding water well records indicated that this layer was not generally utilized by water supply wells in the area. BGC (2012) estimated the radius of impact of the quarry in this stratigraphic unit was approximately 35 m. Correspondingly, the deep bedrock layer does not appear to be significantly utilized by surrounding water wells. The impact of the proposed quarry expansion on surrounding water wells is expected to be minimal, and potential impacts are likely to be identified early by the ongoing monitoring of water levels at on-site monitoring wells.

During the extractive phase of quarry operations, surface water features are expected to be maintained by the discharge of pumped water from the quarry sump. Following final extraction, as part of quarry closure, the cessation of pumping might result in a temporary reduction of flows to surrounding surface water bodies. However, grading measures undertaken as part of quarry closure should direct surface water runoff away from the quarry footprint and towards surface water features. Capping of shallow bedrock seepage faces with lower permeability soils should limit the dewatering of overburden and shallow bedrock layers, which will contribute to the preservation of baseflow in surface water features.

6.0 RECOMMENDATIONS

Based on the results of the current investigation and past investigations at the subject site, the following recommendations are made for the mitigation of potential impacts of the proposed quarry expansion.

6.1 Well Inventory

It is our understanding that the MacLeod III and V properties will not be developed for a significant period of time. Prior to proposed extraction in these areas, it is recommended that a well inventory update for any water wells within 200 m of the proposed excavation limits. The well inventory update should include a site visit to meet with the well owners to identify any historical issues and confirm well construction details, as well as the collection of at least one baseline water quality sample.

6.2 Groundwater Monitoring

In addition to the existing on-site monitoring network, the current investigation has added several monitoring wells to the on-site monitoring network. It is recommended that ongoing monitoring of existing wells continue as per the current program, and that the new wells be added to the monitoring program. Water levels are currently measured at on-site monitoring wells twice yearly, in May and August, as a condition of the PTTW for the site and to assess the effects of quarry operations on surrounding groundwater conditions. Regular review of monitoring data is a component of the trigger mechanism identified below.

6.3 Trigger Mechanism

The current trigger mechanism for action regarding well-related complaints at MacLeod I will be retained as extraction progresses to MacLeod III and V. The trigger mechanism is outlined below.

6.3.1 Impact Predicted from Monitoring Data

Monitoring data from the above-noted annual groundwater monitoring events will be reviewed on an annual basis by a qualified professional. The purpose of the analysis will be to evaluate ongoing impacts and predict anticipated problems. For instance, if consistent water level lowering is observed at an on-site well completed in the shallow bedrock unit, special attention will be given to the potential for drawdown effects at nearby domestic wells completed in the same unit.

6.3.2 Unexpected Well Issues

An emergency response program is proposed for well issues within an area within 500 m of the property boundary. If an unexpected well issue is reported within this radius, an accelerated remedial program will be triggered. Cornwall Gravel or any other designated operator of the quarry, upon receipt of notification of a well issue, either by the owner, MNRF, or MOECC, will:

- Within 500 m of the site, provide an interim potable water supply within 24 hours and notify MOECC of the complaint.
- Within 1 km of the site, notify MOECC of the complaint.



Retain a qualified professional at the operator's expense to conduct a site investigation, determine
the cause, and within 30 days provide a report with recommendations on the best way to remediate
the well issue.

6.4 Contingency Plan

It is recommended that a contingency plan be implemented in the event of actual or potential adverse effects as a result of quarry operations. If, upon review of annual monitoring data, off-site impacts are forecasted, quarry operations will be reviewed and modified as necessary to prevent the anticipated problem from occurring.

If a water well complaint is received, and the subsequent investigation by a qualified professional determines that quarry operations are responsible, the quarry operator will be responsible for restoring the water supply to its original condition at the operator's expense.

6.5 Protection of Water Quality

Various quarry operational procedures have the potential to impact the water quality in the quarry sump, and correspondingly, water quality in the discharge ditch and shallow bedrock and overburden aquifers. It is our understanding that equipment maintenance, fuelling, and repair, as well as the operation of an asphalt plant, will continue to occur on the subject site, either in the MacLeod III or V footprints or more likely in their existing locations within the MacLeod I footprint.

The first and most important step to ensuring the protection of water quality will be through the management of operations and equipment in accordance with industry standards and best practices, as well as legislative requirements. Wherever possible, equipment or operations with the potential to result in impacts, such as the asphalt plant, fuelling areas, or materials storage, will be situated on natural or constructed impervious platforms, with secondary containment. Regulatory requirements of the Technical Standards and Safety Authority (TSSA) will be adhered to as part of operational practice. A minimum 30 m separation will be maintained between the asphalt plant and any surface water source, including the quarry sump, settling pond(s), and/or the culvert/ditch system used for quarry discharge.

6.6 Emergency Spills Procedure

An emergency spills procedure, with emergency employee contact information, is currently in place for the site. The site manager is trained in the emergency spills procedure.

All unexplained losses of fuel or other contaminants will be immediately reported to the main office of Cornwall Gravel, which will be responsible for completing any required cleanup. A quantity of appropriate cleanup material, such as absorbent mats and granular absorbent material, is kept on-site at all times. If a spill occurs, action will immediately be taken to contain and absorb any spilled material.

6.7 Water Conservation Measures

While dewatering is necessary for quarry operation, the following best management practices (as proposed by the Ontario Stone, Sand, and Gravel Association) will be followed at the site to the extent possible:

- Conduct hydrogeological and hydrological investigations to a sufficient level of detail to evaluate the impacts of dewatering, identify the sensitive receptors and provide a satisfactory monitoring plan, trigger mechanism and contingency plan
- Make the best effort to return discharged water to its source
- Ensure that equipment is functioning efficiently (i.e. crushers, wash plants, etc.) to minimize water use in processing
- Reuse process water where possible (i.e. closed-loop systems)
- Ensure that natural water quality is restored as closely as possible to receiver before discharging
- Only remove water from the excavation as required for operations

Detailed information on all mitigation measures proposed for the quarry are contained in the Site Plans, appended to this report.

7.0 SUMMARY AND CONCLUSIONS

This hydrogeological assessment has been prepared to support the development of a quarry on a rural property located in in the City of Ottawa. The proposal is for a Class "A", Category 1 quarry below water, estimated to extract >20,000 tonnes per year.

This assessment shows that a pit/quarry can be developed under the following conditions:

- It is developed, operated, and rehabilitated as per site plans (Figure 8).
- An appropriate separation exists between the extraction area and permanent water bodies, based on floodplain mapping.
- No consumptive water taking or transfer occurs without a valid Permit to Take Water.

McIntosh Perry has made the following recommendations to ensure ongoing compliance should the site be developed:

- Semi-annual water level monitoring should continue on-site in all accessible monitoring well locations.
- Discharge from the quarry sump should continue to be directed to the Eastman Drain, in compliance with the terms of the PTTW.
- Re-evaluation of the surrounding domestic water supply well network within 200 m of the extraction boundary should be completed prior to extraction beginning at MacLeod III and MacLeod V, with a door-to-door domestic water well survey completed at all wells within this radius.

In order to protect groundwater:

- There will be no storage of liquid fuels at the site within 30 m of a water body.
- Mobile equipment will be serviced off-site or in designated shop areas on-site. No servicing of mobile equipment will occur in the extraction area, where practical.
- All petroleum waste liquids generated on-site will be collected and transported off-site by a licensed liquid waste transportation and disposal contractor.
- The immediate reporting of any fuel and lubricant spills to the Ministry of the Environment and Climate Change is mandatory.

The well monitoring data are to be reviewed as per conditions in the PTTW for the site by a qualified professional (P.Geo. or P.Eng.) to assess possible impacts to the groundwater/surface water regime. Water supply and/or monitoring wells within the extraction area are to be abandoned as per O.Reg. 903 when extraction at the water table occurs within 15 m of them, or they otherwise interfere with aggregate extraction.

8.0 QUALIFICATIONS AND SIGNATURES

Field assessment and data analysis for this report was undertaken by Jordan Bowman of McIntosh Perry. Mr. Bowman is an Environmental Scientist McIntosh Perry. He has assisted with several hydrogeological studies and completed environmental site assessments for government agencies, corporations, and individuals.

Reporting for this assignment was undertaken by Dan Arnott, P.Eng., of McIntosh Perry. Mr. Arnott is a licensed Professional Engineer in Ontario and a Qualified Person (QP) under O.Reg. 153/04 as amended. Mr. Arnott has experience in hydrogeological assessment of numerous aggregate resource projects of various scales, for public and private sector clients, as well as extensive experience in hydrogeological assessments and contaminated site investigations and remediation.

Senior review was undertaken by Mark Priddle, P.Geo., of McIntosh Perry. Mr. Priddle is a licensed Professional Geoscientist in Ontario and a Qualified Person (QP) under O.Reg. 153/04, as amended. Over the past 20 years, he has conducted and reviewed numerous hydrogeological studies and impact assessments for corporations, individuals, and government agencies.

McIntosh Perry is licensed to practice engineering and geoscience in the Province of Ontario. McIntosh Perry holds Certificates of Authorization with the Professional Engineers of Ontario (PEO) and the Association of Professional Geoscientists of Ontario (APGO), and is a full member of the Consulting Engineers of Ontario (CEO).

We trust that this information is satisfactory for your present requirements. Should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Respectfully submitted,

McIntosh Perry Consulting Engineers Ltd.

Mark Priddle, P.Geo.
Project Manager and Senior Reviewer

Daniel J. Arnott, P.Eng. Geo-Environmental Engineer

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9.0 LIMITATIONS

This report has been prepared, and the work referred to in this report has been undertaken by, McIntosh Perry Consulting Engineers Ltd. for Cornwall Gravel Company Ltd. It is intended for the sole and exclusive use of Cornwall Gravel, any affiliated companies and partners and their respective financial institutions, insurers, agents, employees and advisors (collectively, 'Cornwall Gravel'). The report may not be relied upon by any other person or entity without the express written consent of McIntosh Perry Consulting Engineers Ltd. (in the form of a Reliance Letter).

Any use which a third party makes of this report, or any reliance on decisions made based on it, without a Reliance Letter are the responsibility of such third parties. McIntosh Perry Consulting Engineers Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The investigation undertaken by McIntosh Perry Consulting Engineers Ltd. with respect to this report and any conclusions or recommendations made in this report reflect McIntosh Perry Consulting Engineers Ltd.'s judgment based on the site conditions observed at the time of the site inspection on the date(s) set out in this report and on information available at the time of the preparation of this report.

This report has been prepared for specific application to this site and it is based, in part, upon visual observation of the site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, portions of the site which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site, substances addressed by the investigation may exist in areas of the site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the locations from which samples were taken.

If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions and recommendations in this report may be necessary. Some of the information presented in this report was provided through maps, air photographs, and interviews. Although attempts were made, whenever possible, to obtain a minimum of two confirmatory sources of information, McIntosh Perry Consulting Engineers Ltd., in certain instances, has been required to assume that the information provided is accurate.

Should additional information become available, McIntosh Perry Consulting Engineers Ltd. requests that this information be brought to our attention so that we may re-assess the conclusions presented herein.

10.0 REFERENCES

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TABLES



CP-16-0280
Cornwall Gravel Company Ltd. - Hydrogeological Level 1 and 2 Investigation - Proposed MacLeod III and MacLeod V Pits/Quarries
Table1: Monitoring Well Construction Details, On-Site Monitoring Network

Well ID	Well Type	Top of casing (TOC) elevation, m ASL ^{1, 2}	Ground surface elevation, m ASL ²	Stickup (m)	Total Depth (m)	Screened or open hole interval, m BGS ³	Screened or open hole interval, m ASL ⁴	Comments
TW1	Open Hole		57.4		61	6.1 - 61	51.33.6	TW1 instrumented with piezometers 1-1 through 1-3 following pump test on
TW1-1	Piezometer		57.4			33.5 - 61	23.93.6	open hole; TW1 destroyed as of 2011.
TW1-2	Piezometer		57.4			16.1 - 30.6	41.3 - 26.8	
TW1-3	Piezometer		57.4			6.8 - 12.8	50.6 - 44.6	
TW2	Open Hole	62.39	62.390		61.2	6.1 - 61.2	56.29 - 1.19	
TW3	Open Hole	68.87	68.870		68.9	12.8 - 68.9	56.070.03	TW3 instrumented with piezometers 3-1 through 3-3 following pump test an
TW3-1	Piezometer	68.87	68.470	0.400		29.3 - 68.9	39.170.43	open hole
TW3-2	Piezometer	68.87	68.470	0.400		17.4 - 26.4	51.07 - 42.07	
TW3-3	Piezometer	68.87	68.470	0.400		12.8 - 13.9	55.67 - 54.57	
TW4	Open Hole	58.13	58.130		61	6.1 - 61	52.032.87	TW4 instrumented with piezometers 4-1 through 4-3 following pump test on
TW4-1	Piezometer	58.13	57.800	0.330		34.8 - 61	233.2	open hole
TW4-2	Piezometer	58.13	57.800	0.330		14.3 - 32.1	43.5 - 25.7	
TW4-3	Piezometer	58.13	57.800	0.330		6.2 - 11.2	51.6 - 46.6	
TW5	Open Hole	72.36	71.800	0.560	23.8	12.5 - 23.8	59.3 - 48	
TW6-1	Open Hole	60.03	59.570	0.460	91.44	7.3 - 91.44	52.2731.87	
TW6-2	Open Hole	60	59.200	0.800	12.1	6 - 12.1	53.2 - 47.1	
TW7-1	Open Hole	64.48	64.030	0.450	79.24	9.7 - 79.24	54.3315.21	All multi-level locations from TW7 onward consist of separate shallow and
TW7-2	Open Hole	64.19	63.570	0.620	12.2	7 - 12.2	56.57 - 51.37	deep boreholes instead of multi-level piezometer installations within the
McLeod House	Open Hole	-	-		43.7	6.1 - 43.7	-	Originaly 29.6 m deep, deepened in 1995, mined out.
Old Shop Well	Open Hole	74.9	74.510	0.390	91.4	? - 91.4	16.89	
New Shop Well	Open Hole	74.97	74.550	0.420	30.48	14.02 - 30.48	60.53 - 44.07	
Scale House Well	Open Hole	74.67	73.980	0.690	24.4	14 - 24.4	59.98 - 49.58	
Lab Well	Open Hole	74.67	73.370	1.300	18.3	14.6 - 18.3	58.77 - 55.07	
TW8	Open Hole	73.29	72.590	0.700	18.9	14.9 - 18.9	57.69 - 53.69	
TW9-1	Open Hole	67.68	67.230	0.450	109.73	13.4 - 109.73	53.8342.5	
TW9-2	Open Hole	67.7	67.060	0.640	18.29	13.4 - 18.29	53.66 - 48.77	
TW10	Open Hole	70.76	70.310	0.450	111.86	13.7 - 111.86	56.6141.55	
TW11-1	Open Hole	73.99	73.530	0.460	116.4	20.12 - 116.4	53.4142.87	
TW11-2	Open Hole	74.08	73.460	0.620	19.35	16.3 - 19.35	57.16 - 54.11	
TW11-3	Open Hole	74.25	73.410	0.840	9.1	6.1 - 9.1	67.31 - 64.31	
TW12	Open Hole	72.87	72.040	0.830	18.24	15.19 - 18.24	56.85 - 53.8	
TW13	Open Hole	73.13	72.720	0.410	21.34	15.24 - 21.34	57.48 - 51.38	

Notes

- 1. m ASL metres above sea level
- 2. Elevations re-surveyed by Cornwall Gravel in 2016, may not be consistent with previous reports but reflect most up-to-date information. TW1 destroyed and not re-surveyed.
- 3. m BGS metres below ground surface
- 4. Cased portion of well not included in open hole interval.

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Cornwall Gravel Company Ltd. - Hydrogeological Level 1 and 2 Investigation - Proposed MacLeod III and MacLeod V Quarries
Table 2: MOECC Water Well Record Summary

Well ID	Water Use	Total depth (m)	Water Found At (m)	Static Water Depth (m)	Pumping Rate (L/min)	Depth to Bedrock (m)	Formation Description	Formation Thi	ckness (m)
2303086	Domestic	19.8	19.2	4.6		17.7	Brown hardpan, boulders Grey hardpan Grey hardpan, boulders Grey Gravel Grey Limestone	0.0 10.7 15.8 17.1 17.7	10.7 15.8 17.1 17.7 19.8
5804562	Domestic	27.1	24.4	4.9	9.1	8.8	Brown till, hard Grey till, hard	0.0 2.4	2.4 8.8
5801213	Domestic	12.2	11.6	2.4	22.8	4.0	Grey limestone, layered Brown loam Hardpan	8.8 0.0 1.5	27.1 1.5 4.0
5801933	Domestic	37.5	34.4	6.1	18.2	8.2	Grey rock Brown loam Grey clay, boulders, hard Brown gravel, sand, clay	4.0 0.0 0.6 6.4	12.2 0.6 6.4 8.2
5801067	Livestock	29.6	29.0	4.0	22.8	4.6	Grey limestone, stones, hard Hardpan, boulders	8.2 0.0	37.5 4.6
5802458	Domestic	21.3	19.8	4.6	45.5	17.4	Grey limestone Brown hardpand, stones, hard Grey hardpan, stones, hard Grey limestone, layered	4.6 0.0 2.4 17.4	29.6 2.4 17.4 21.3
5803970	Not Used (TW)			0.0		0.0			
5803971	Not Used (TW)			0.0		0.0			
5803972	Not Used (TW)			0.6		0.0			
5800113	Domestic	15.5	14.6	4.6	18.2	13.7	Hardpan Grey limestone	0.0 13.7	13.7 15.5
5800114	Domestic	9.8	9.8	1.5	27.3	0.0	Clay Sand, gravel	0.0 6.1	6.1 9.8
5800115	Domestic	10.2	10.2	0.3	18.2	8.5	Gravel Slate	0.0	8.5 10.4
5800116	Domestic	32.0	32.0	7.3	22.8	10.4	Hardpan, boulders Grey limestone	0.0 10.4	10.4 32.0
5800117	Domestic	20.7	18.6	2.1	30.5	9.8	Blue clay Limestone	0.0 9.8	9.8 20.7
5801367	Domestic	17.4	16.5	3.0	36.4	12.8	Grey hardpan, boulders Grey limestone	0.0 12.8	12.8 17.4
5800267	Domestic	19.2	19.2	7.3	18.2	8.5	Clay Hardpan Limestone	0.0 3.7 8.5	3.7 8.5 19.2
5800268	Livestock	10.1	9.1	1.8	22.8	4.0	Clay Limestone	0.0 4.0	4.0 10.1
5800269	Domestic	23.5	23.5	3.0	18.2	3.7	Hardpan Limestone	0.0 3.7	3.7 23.5
5800270	Domestic	28.3	28.3	3.0	91.0	6.1	Hardpan Limestone	0.0 6.1	6.1 28.3
5801261	Domestic	15.2	13.7	3.0	45.5	5.8	Brown clay Grey gravel, boulders Grey limestone	0.0 4.6 5.8	4.6 5.8 15.2
5801264	Domestic	14.0	14.0	4.6	45.5	0.0	Hardpan Gravel	0.0 9.8	9.8 14.0
5800008	Domestic	21.9	20.7	7.6	22.8	13.4	Clay, boulders Grey rock	0.0 13.4	13.4 21.3
5800019	Livestock	16.8	15.2	4.6	27.3	11.6	Clay, boulders Limestone	0.0 11.6	11.6 16.8
5801902	Domestic	19.8	17.1	4.0	18.2	8.8	Brown loam, packed Grey clay, boulders, hard Grey clay, sand, gravel Grey limestone, stones, hard	0.0 0.3 6.4	0.3 6.4 8.8 19.8
5803941	Not Used	61.0		0.0		4.6	Brown loam, loose Brown clay, dense Brown hardpan, packed Grey limestone, layered	8.8 0.0 0.6 2.1 4.6	0.6 2.1 4.6 61.0
5803942	Not Used	61.0		0.0		2.1	Brown hardpand, packed Grey limestone, layered	0.0	2.1 61.0
5803943	Not Used	67.1		0.0		11.3	Brown hardpan, stones, packed Grey hardpan, gravel, packed Grey limestone, layered	0.0 4.0 11.3	4.0 11.3 67.1
5803944	Not Used	61.0		0.0		5.2	Brown loam, loose Brown hardpan, stones, packed Grey limestone, layered	0.0 0.6 5.2	0.6 5.2 61.0

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Table 2: MOECC Water Well Record Summary

Well ID	Water Use	Total depth (m)	Water Found At (m)	Static Water Depth (m)	Pumping Rate (L/min)	Depth to Bedrock (m)	Formation Description	Formation Thi	ckness (m)
5803948	Domestic	19.8	19.2	3.0	45.5	10.4	Brown loam, fill, loose	0.0	0.6
							Brown hardpan, stones, packed	0.6	3.7
							Grey hardpan, gravel, packed	3.7	10.4
							Grey limestone, layered	10.4	19.8
5803950	Domestic	36.6	35.1	4.6	27.3	12.8	Brown hardpan, packed	0.0	4.6
							Brown clay, dense	4.6	11.3
							Grey hardpan, packed	11.3	12.8
							Grey limestone, layered	12.8	36.6
5803778	Commercial	24.4	23.2	4.0	68.3	11.3	Grey gravel, fill, packed	0.0	2.1
							Grey hardpan, packed	2.1	11.3
							Grey limestone, layered	11.3	24.4
5800357	Livestock	18.3	15.2	7.9	31.9	8.5	Previously dug/bored	0.0	8.5
							Grey rock	8.5	15.2
							Clay, gravel	15.2	18.3
5802219	Domestic	24.7	21.6	4.6	9.1	11.3	Brown hardpan, packed	0.0	11.3
							Grey limestone, stones, hard	11.3	24.7
5801454	Domestic	22.9	22.6	6.4	45.5	16.8	Brown hardpan, boulders	0.0	9.1
							Grey hardpan, boulders	9.1	16.8
							Grey limestone	16.8	22.9
5802872	Domestic	19.8	19.8	6.1	36.4	0.0	Brown till, boulders, hard	0.0	2.4
							Grey till, boulders, hard	2.4	18.3
							Grey gravel, hard	18.3	19.8
5803264	Domestic	10.7	16.8	1.5		0.0	Black loam	0.0	0.6
							Grey clay	0.6	10.7
5803275	Domestic	18.3	17.7	1.5	36.4	12.8	Grey till, boulders, hard	0.0	12.8
							Grey rock, hard	12.8	18.3
5803875	Domestic	22.9	22.3	3.7	45.5	0.0	Brown fill, stones, loose	0.0	1.5
							Brown hardpan, stones, packed	1.5	3.0
							Grey till, stones, packed	3.0	17.1
							Grey rock, layered	17.1	22.9
5803683	Domestic	21.3	19.8	7.6	18.2	18.3	Brown hardpan, boulders, hard	0.0	3.0
							Grey hardpan, boulders, hard	3.0	16.8
							Grey gravel, boulders, loose	16.8	18.3
							Grey limestone, rock, hard	18.3	21.3
5803689	Domestic	61.0	22.9	4.6	9.1	8.2	Brown hardpan, stones, packed	0.0	3.7
							Grey hardpan, gravel, packed	3.7	8.2
							Grey limestone, layered	8.2	61.0
5803706	Domestic	22.9	20.7	5.5	45.5	17.7	Brown hardpan, boulders, hard	0.0	3.0
					10.10		Grey hardpan, boulders, gravel	3.0	17.7
							Grey limestone, rock, porous	17.7	22.9
5804112	Domestic	25.3	22.9	4.9	13.7	12.2	Brown hardpan, boulders, dense	0.0	3.0
500 1112	Domestic	25.5	22.3	5	15.7	12.2	Grey hardpan, boulders, dense	3.0	12.2
							Grey limestone, rock, layered	12.2	25.3
5803015	Domestic	18.9	18.3	6.1	36.4	18.3	Bronw hardpan, hard	0.0	0.9
5005015	Domestic	13.5	10.5	J.1	33.4	10.5	Grey hardpan, hard	0.9	18.3
							Grey rock, hard	18.3	18.9
5803050	Domestic	19.8	18.6	6.1	45.5	17.1	Brown hardpan, packed	0.0	3.4
3003030	Domestic	15.0	10.0	0.1	43.3	17.1	Grey hardpan, packed	3.4	9.8
							Grey gravel, packed	9.8	17.1
							I		
5803051	Domestic	21.3	20.7	4.6	45.5	19.5	Brown hardpan, packed	0.0	19.8 7.6
3003031	Domestic	21.5	20.7	4.0	75.5	10.0	Grey hardpan, packed	7.6	11.6
							Grey gravel, hardpan, packed	11.6	19.5
E004244	Domestic	15.3	12.7	4.0	45.5	13.0	Grey limestone, layered	19.5	21.3
5804211	Domestic	15.2	13.7	4.6	45.5	12.8	Previously dug/bored	0.0	7.3
							Brown hardpan, boulders, dense	7.3	12.8
E004242	Notileed	10.7		0.0	 	0.0	Grey limestone, rock, layered	12.8	15.2
5804243	Not Used	10.7		0.0		9.8	Brown till, hard	0.0	2.4
							Grey till, hard	2.4	6.1
							Grey sand, packed	6.1	9.8
E004211	No. 1	10.1		0.0	1	40.1	Grey rock, fractured	9.8	10.7
5804244	Not Used	10.1		0.0		10.1	Brown till, hard	0.0	3.0
							Brown sand, boulders, hard	3.0	4.6
							Grey till, hard	4.6	7.6
							Grey gravel, packed	7.6	8.8
							Grey boulders, hard	8.8	9.4
	1						Grey gravel, packed	9.4	10.1
							Limestone, rock	10.1	10.1

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Cornwall Gravel Company Ltd. - Hydrogeological Level 1 and 2 Investigation - Proposed MacLeod III and MacLeod V Quarries
Table 2: MOECC Water Well Record Summary

Well ID	Water Use	Total depth (m)	Water Found At (m)	Static Water Depth (m)	Pumping Rate (L/min)	Depth to Bedrock (m)	Formation Description	Formation Thi	ckness (m)
5804245	Not Used	13.4		0.0		0.0	Brown till, boulders, hard	0.0	2.1
							Grey till, boulders, hard	2.1	4.3
							Grey sand, packed	4.3	7.6
							Grey sand, boulders, hard	7.6	13.4
5804246	Not Used	14.3		0.0		14.3	Brown till, hard	0.0	3.0
							Brown sand, boulders, hard	3.0	4.3
							Grey till, boulders, hard	4.3	9.8
							Grey sand, gravel, packed	9.8	14.3
							Rock	14.3	14.3
5804403	Domestic	23.8	22.9	7.9	45.5	11.9	Brown till, boulders, hard	0.0	3.7
5001.05	Domestic	25.0	22.3	7.13	.5.5	11.5	Grey till, boulders, hard	3.7	11.9
							Grey limestone, fractured	11.9	23.8
5804421	Domestic	19.8	18.3	6.1	36.4	16.2	Brown till, hard	0.0	2.7
3004421	Domestic	15.0	10.5	0.1	30.4	10.2	Grey till, hard	2.7	16.2
								16.2	19.8
F002002	Damastia	25.0	22.0	2.0	12.7	10.1	Grey limestone, layered	_	_
5803093	Domestic	25.0	23.8	3.0	13.7	10.1	Brown till, hard	0.0	2.7
							Grey till, hard	2.7	10.1
							Grey rock, hard	10.1	25.0
5803406	Domestic	27.4	25.9	6.1		0.0	Brown hardpan, boulders	0.0	16.8
							Brown gravel, sand, clay	16.8	19.5
							Grey boulders, hard	19.5	27.4
5803410	Domestic	21.3	18.3	6.1	22.8	17.1	Brown till, hard	0.0	2.4
							Grey till, hard	2.4	17.1
							Brown rock, hard	17.1	21.3
5803052	Domestic	17.4	17.1	6.1	227.5	16.8	Brown fill, stones, packed	0.0	2.7
							Grey hardpan, packed	2.7	9.1
							Grey gravel, packed	9.1	16.8
							Grey limestone, fractured	16.8	17.4
5803081	Domestic	26.2	24.7	10.7	18.2	7.3	Brown till, hard	0.0	2.4
							Grey till, hard	2.4	7.3
							Grey limestone, hard	7.3	26.2
5803082	Domestic	19.5	18.6	3.4	22.8	0.0	Brown till, hard	0.0	2.4
3803082	Domestic	15.5	10.0	3.4	22.0	0.0	Grey till, hard	2.4	15.2
									19.5
E00300C	Damastia	10.0	17.4	2.0	26.4	0.2	Grey till, hard	15.2	3.7
5803086	Domestic	18.9	17.4	3.0	36.4	8.2	Brown till, hard	0.0	
							Grey till, hard	3.7	8.2
							Grey rock, hard	8.2	18.9
5804664	Domestic	30.5	24.4	6.1	13.7	11.6	Brown till, boulders, dense	0.0	3.7
							Grey till, boulders, dense	3.7	11.6
							Grey limestone, rock, shale	11.6	30.5
5804900	Domestic	24.0	17.0	1.6	364.0	15.5	Brown fill, boulders, loose	0.0	2.1
			23.0				Brown till, stones, packed	2.1	6.7
							Grey till, gravel, packed	6.7	15.5
							Grey limestone, layered	15.5	24.1
5804936	Domestic	20.7	20.0	2.1	40.0	12.8	Brown till, hard	0.0	2.1
							Grey till, hard	2.1	12.2
							Grey gravel, packed	12.2	12.8
							Grey limestone, layered	12.8	20.7
5804869	Commercial	24.4	21.0	6.1	60.0	14.0	Grey gravel, fill, loose	0.0	3.0
						5	Brown till, stones, packed	3.0	7.7
							Grey till, gravel, packed	7.7	14.0
							Grey limestone, layered	14.0	24.4
5805037	Industrial	91.4		0.0	 	5.5	Brown till	0.0	3.9
2002027	iiiuuStiidi	51.4		0.0		3.3			
							Grey till	3.9	5.5
F00F033	B	20.5	27.0		40.0	4.0	Grey limestone	5.5	91.4
5805038	Domestic	30.5	27.0	5.4	40.0	14.0	Brown till	0.0	3.9
							Grey till	3.9	12.8
							Grey gravel	12.8	14.0
	ļ				1		Grey limestone	14.0	30.5
5805064	Domestic	23.8	23.0	3.9	20.0	10.4	Brown till	0.0	3.4
							Grey till	3.4	10.4
		<u> </u>			<u> </u>		Grey limestone	10.4	23.8
5805081	Domestic			24.8		3.4	Brown till, hard	0.0	3.5
							Grey limestone, layered	3.5	50.9
5802930	Domestic	20.1	19.8	4.6	45.5	19.8	Brown till, boulders	0.0	4.9
			-5.0		.5.5	_5.0	Grey till, sand	4.9	19.2
							Grey gravel, sand	19.2	19.8

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Cornwall Gravel Company Ltd. - Hydrogeological Level 1 and 2 Investigation - Proposed MacLeod III and MacLeod V Quarries
Table 2: MOECC Water Well Record Summary

Well ID	Water Use	Total depth (m)	Water Found At (m)	Static Water Depth (m)	Pumping Rate (L/min)	Depth to Bedrock (m)	Formation Description	Formation Thio	kness (m)
5804420	Domestic	19.8	18.6	4.6	18.2	6.4	Brown till, hard	0.0	3.7
							Grey till, boulders, hard	3.7	6.4
							Grey limestone, layered	6.4	19.8
5804631	Commercial	18.3	8.8	3.0	45.5	7.6	Brown fill, gravel, packed	0.0	1.2
			16.5				Grey till, stones, packed	1.2	7.6
							Grey limestone, layered	7.6	18.3
7105481	Test Hole	79.2		0.0		0.0	Brown clay, gravel, hard	0.0	7.6
							Grey limestone, layered	7.6	79.2
7105497	Test Hole	12.2		0.0		0.0	Brown clay, gravel, hard	0.0	7.0
							Grey limestone, layered	7.0	12.2
7112494	Domestic	23.7	15.0	4.1	20.0	0.0	Brown clay, silt, hard	0.0	4.3
							Grey silt, clay, hard	4.3	12.5
							Grey gravel, boulders, packed	12.5	14.3
							Grey limestone, layered	14.3	23.7
7174662	Monitoring and	Test Hole		0.0		0.0			
7174663	Monitoring and	Test Hole		0.0		0.0			
7174664	Monitoring and	Test Hole		0.0		0.0			
7165083				5.1		0.0	Brown silt, clay, hard	0.0	3.6
							Grey silt, clay, hard	36.0	13.1
							Grey gravel, packed	13.1	14.6
							Grey limestone, layered	14.6	18.3
7165084	itoring and Test	12.1		0.0		0.0	Brown clay, silt, hard	0.0	2.5
							Grey clay, soft	2.5	4.8
							Grey limestone, layered	4.8	12.1
7163804	itoring and Test	3.7		0.0		0.0	Grey gravel, loose	0.0	0.3
							Brown clay, silt, soft	0.3	1.5
							Grey gravel, sand, dense	1.5	3.7
7163805	itoring and Test	4.6		0.0		0.0	Brown loam, soft	0.0	0.3
							Brown sand, stones, soft	0.3	2.1
							Brown clay, stones, soft	2.1	4.6
7189531	Domestic	24.3	22.0	4.5	45.0	0.0	Brown silt, stones, boulders	0.0	2.3
							Grey silt, clay, stones	2.3	12.8
					ĺ		Grey gravel, stones, packed	12.8	14.0
							Grey limestone, layered	14.0	24.3
7194476	Domestic	24.3	23.0	3.7	36.0	0.0	Brown clay, silt, hard	0.0	5.1
					ĺ		Grey clay, silt, layered	5.1	12.4
							Grey gravel, stones, packed	12.4	14.8
					ĺ		Grey limestone, layered	14.8	24.3

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Cornwall Gravel Company Ltd. - Hydrogeological Level 1 and 2 Investigation - Proposed MacLeod III and MacLeod V Pits/Quarries
Table1: Monitoring Well Construction Details, On-Site Monitoring Network

144 II IB	Measuring Point	01-May-95	01-May-97	28-May-98	31-Aug-98	23-Feb-00	09-May-00	30-Aug-00	17-Apr-01	06-Jun-01	03-Aug-01	03-May-02	20-Aug-02	15-May-03	08-Aug-03	25-May-04	18-Aug-04	06-May-05
Well ID	Elevation (m ASL)	m asl																
TW2	62.386	39.876	-	37.946	35.866	37.246	37.536	35.766	36.086	36.396	35.446	38.446	35.336	36.316	34.776	36.416	35.506	35.266
TW3-1	68.873	38.333	-	-	-	-	36.263	34.763	34.063	34.043	33.553	36.313	33.393	34.073	33.813	33.903	33.753	33.863
TW3-2	68.873	69.593	65.833	66.253	65.703	-	67.033	65.763	66.943	66.693	65.263	67.183	65.163	67.383	66.193	66.893	66.603	66.963
TW3-3	68.873	70.193	66.903	67.323	66.813	0	68.243	66.933	68.073	67.843	66.353	68.163	66.183	68.123	66.953	67.833	67.493	67.933
TW4-1	58.13	56.69	51.18	51.54	50.94	50.59	51.13	50.73	50.5	50.53	-	50.73	50.38	50.7	50.56	50.64	50.28	50.43
TW4-2	58.13	48.95	45.22	46.35	45.11	45.77	46.57	45.08	45.74	45.52	-	46.33	44.4	45.79	45.03	45.42	44.97	45.05
TW4-3	58.13	59.33	56.66	56.8	56.56	56.67	57.99	56.65	57.49	57.25	-	57.65	56.44	57.55	56.89	57.39	57.14	57.3
TW5	72.358								70.328	70.108	68.228		68.518	70.228	69.048	69.998	69.378	69.868
TW6-1	60.03																	
TW6-2	60																	
TW7-1	64.484																	
TW7-2	64.189																	
New Shop Well	74.969																	
Old Shop Well	74.904																	
Lab Well	74.407																	
Scale House Well	74.666																	
TW8	73.294																	
TW9-1	67.68																	
TW9-2	67.703																	
TW10	70.764																	
TW11-1	73.994																	
TW11-2	74.076																	
TW11-3	73.41																	
TW12	72.87																	
TW13	73.13																	

Notes

- 1. Only elevations reported by CGC prior to 2013.
- 2. Elevations re-surveyed by Cornwall Gravel in 2016, may not be consistent with previous reports but reflect most up-to-date information.
- 3. m BTOC metres below top of casing (or measuring point)
- 4. m ASL metres above sea level

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Cornwall Gravel Company Ltd. - Hydrogeo
Table1: Monitoring Well Construction De

Well ID	Measuring Point	12-Sep-05	30-Jun-06	18-Oct-06	31-May-07	19-Sep-07	02-May-08	17-Sep-08	16-May-09	10-Aug-09	01-May-10	11-Aug-10	03-May-11	09-Aug-11
Well ID	Elevation (m ASL)	m asl												
TW2	62.386	35.916	35.086	35.966	35.096	39.706	37.076	35.946	36.376	35.806	38.056	37.356	37.796	49.486
TW3-1	68.873	33.623	33.833	33.603	34.033	34.263	34.683	34.053	34.213	34.343	34.443	34.283	34.363	33.673
TW3-2	68.873	65.913	66.563	66.423	66.463	65.183	66.923	65.243	66.873	66.323	66.823	66.953	66.763	64.563
TW3-3	68.873	66.903	67.643	67.503	67.593	66.223	68.003	66.393	67.933	67.453	67.833	68.043	67.833	65.493
TW4-1	58.13	50.06	50.26	50.1	50.14	49.68	50.18	49.84	50.12	49.99	49.99	49.93	50.02	49.78
TW4-2	58.13	44.72	44.21	44.15	44.28	43.96	45.15	44.07	44.58	44.7	45.1	45	45.17	43.45
TW4-3	58.13	56.85	57	56.92	56.82	56.01	57.14	56.12	57.23	57.11	57.22	57.36	57.19	55.89
TW5	72.358	68.588	69.468	69.298	69.478	68.158	69.718	68.338	69.788	69.428	69.678	69.608	69.608	67.898
TW6-1	60.03			41.4	50.93	51.86	53.49	49.98	50.57	52.26	52.42	52.89	52.1	50.83
TW6-2	60													
TW7-1	64.484							53.174	55.414	57.584	58.444	57.374	57.074	
TW7-2	64.189							52.879	61.759	61.119	61.819	61.829	61.679	
New Shop Well	74.969													
Old Shop Well	74.904			72.23	72.184	71.354	71.994	71.304	72.374	72.174	72.354	72.444	67.734	66.184
Lab Well	74.407													
Scale House Well	74.666										69.906			68.276
TW8	73.294													
TW9-1	67.68													
TW9-2	67.703													
TW10	70.764													
TW11-1	73.994													
TW11-2	74.076													
TW11-3	73.41													
TW12	72.87													
TW13	73.13													

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Cornwall Gravel Company Ltd. - Hydrogeo
Table1: Monitoring Well Construction De

Well ID	Measuring Point	12-Aug-11	06-Dec-11	19-May-12	31-Aug-12	30-M	ay-13	29-A	ug-13	12-M	ay-14	26-Se	ep-14	28-M	ay-15
weilib	Elevation (m ASL)	m asl	m asl	m asl	m asl	m btoc	m asl	m btoc	m asl	m btoc	m asl	m btoc	m asl	m btoc	m asl
TW2	62.386			36.826	35.966	27.09	35.296	42.89	19.496	10.2	52.186	27.4	34.986	25.3	37.086
TW3-1	68.873			34.263	33.973	34.36	34.513	35.65	33.223	33.51	35.363	35.53	33.343	35.09	33.783
TW3-2	68.873			66.433	64.303	3.12	65.753	4.61	64.263	3.09	65.783	4.01	64.863	3.9	64.973
TW3-3	68.873			67.273	65.113	2.1	66.773	3.45	65.423	2.09	66.783	2.84	66.033	2.71	66.163
TW4-1	58.13			49.34	48.97	9.66	48.47	9.73	48.4	9.6	48.53	9.85	48.28	9.98	48.15
TW4-2	58.13			44.86	43.93	14.43	43.7	14.73	43.4	13.8	44.33	14.57	43.56	14.41	43.72
TW4-3	58.13			56.91	55.67	1.97	56.16	2.84	55.29	1.8	56.33	2.38	55.75	2.34	55.79
TW5	72.358			69.168	67.618	3.82	68.538	4.82	67.538	3.74	68.618	4.34	68.018	4.27	68.088
TW6-1	60.03	51.6	50.2	51.65	51.09	8.45	51.58	10.06	49.97	8.32	51.71	10.23	49.8	9.29	50.74
TW6-2	60		57.42	56.93	55.35	4.03	55.97	4.94	55.06	3.47	56.53	4.63	55.37	4.45	55.55
TW7-1	64.484	54.854				14.14	50.344	8.86	55.624	8.46	56.024	11.43	53.054	8.4	56.084
TW7-2	64.189	59.149				2.88	61.309	4.85	59.339	2.89	61.299	4.3	59.889	3.84	60.349
New Shop Well	74.969					5.77	69.199	6.67	68.299	5.74	69.229	6.37	68.599	6.3	68.669
Old Shop Well	74.904					8.39	66.514	9.28	65.624	8.4	66.504	8.91	65.994	8.96	65.944
Lab Well	74.407					-		6.6	67.807	5.65	68.757	6.22	68.187	6.31	68.097
Scale House Well	74.666					6.2	68.466	6.79	67.876	5.92	68.746	6.42	68.246	6.59	68.076
TW8	73.294														
TW9-1	67.68														
TW9-2	67.703														
TW10	70.764														
TW11-1	73.994														
TW11-2	74.076														
TW11-3	73.41														
TW12	72.87														
TW13	73.13														

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Cornwall Gravel Company Ltd. - Hydrogeo
Table1: Monitoring Well Construction De

Well ID	Measuring Point	31-A	ug-16	18-M	ay-16	24-Jı	un-16	07-Se	ep-16	07-0	ct-16	02-D	ec-16
well ib	Elevation (m ASL)	m btoc	m asl										
TW2	62.386	27.23	35.156	24.54	37.846			26.34	36.046	27.02	35.366		
TW3-1	68.873	35.92	32.953	34.41	34.463			35.09	33.783	35.57	33.303	33.48	35.393
TW3-2	68.873	4.75	64.123	3.72	65.153			5.01	63.863	5.4	63.473	3.18	65.693
TW3-3	68.873	3.52	65.353	2.49	66.383			3.85	65.023	4.38	64.493	2.27	66.603
TW4-1	58.13	10.07	48.06	9.84	48.29			10.23	47.9	10.38	47.75	10.4	47.73
TW4-2	58.13	14.58	43.55	14.54	43.59			14.5	43.63	14.99	43.14	14.03	44.1
TW4-3	58.13	2.59	55.54	2.16	55.97			3.01	55.12	3.31	54.82	1.4	56.73
TW5	72.358	4.68	67.678	4.2	68.158			5.42	66.938	5.73	66.628	4.23	68.128
TW6-1	60.03	9.62	50.41	8.61	51.42			10.35	49.68	11.36	48.67	7.01	53.02
TW6-2	60	4.78	55.22	4.15	55.85			5.18	54.82	5.46	54.54	2.9	57.1
TW7-1	64.484	11.79	52.694	8.62	55.864			11.4	53.084	11.43	53.054	7.51	56.974
TW7-2	64.189	5.03	59.159	3.45	60.739			5.3	58.889	5.65	58.539	2.77	61.419
New Shop Well	74.969	7.1	67.869	6.27	68.699			11.9	63.069	7.79	67.179	6.2	68.769
Old Shop Well	74.904	9.32	65.584	8.15	66.754			9.5	65.404	9.72	65.184	7.83	67.074
Lab Well	74.407	6.65	67.757	6.1	68.307			7.56	66.847	7.61	66.797	6.1	68.307
Scale House Well	74.666	6.76	67.906	6.37	68.296			7.23	67.436	7.61	67.056	6.6	68.066
TW8	73.294					5.71	67.584	6.46	66.834	6.84	66.454	5.18	68.114
TW9-1	67.68							20.34	47.34	20.7	46.98	19.53	48.15
TW9-2	67.703							9.7	58.003	10.1	57.603	7.13	60.573
TW10	70.764							4.21	66.554	4.54	66.224	3.04	67.724
TW11-1	73.994									9.33	64.664	7.93	66.064
TW11-2	74.076							4.36	69.716	4.62	69.456	2.24	71.836
TW11-3	73.41											2.09	71.32
TW12	72.87											1.1	71.77
TW13	73.13											6.64	66.49

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Cornwall Gravel Company Ltd. - Hydrogeological Level 1 and 2 Investigation - Proposed MacLeod III and MacLeod V Pits/Quarries
Table 4: Summary of Hydraulic Conductivity Testing Results

Well ID	Well Type	Screened or open hole	Screened or open hole	Thickness of Tested	Test Number ²	Test Type	Analysis	Hydraulic Conductivity	Transmissivity
Well ID	vven Type	interval (m BGS)	interval (m ASL)	Interval (m)	rest Number	rest Type	Allalysis	(m/s) ¹	(m2/day) ¹
1-1	Piezometer	33.5 - 61.0	23.93.6	27.5	1	Rising Head Slug	Hvorslev	7.00E-07	0.03
1-2	Piezometer	16.1 - 30.6	41.3 - 26.8	14.5	1	Rising Head Slug	Hvorslev	1.07E-05	4.21
1-3*	Piezometer	6.8 - 12.8	50.6 - 44.6	6.0	1	Constant Head		6.34E-05 to 8.09E-05	10.96-13.98
3-1	Piezometer	29.3 - 68.9	39.20.4	39.6	1	Rising Head Slug	Hvorslev	3.87E-09	0.0004
3-2	Piezometer	17.4 - 26.4	51.1 - 42.1	9.0	1	Rising Head Slug	Hvorslev	2.95E-06	1.23
3-3	Piezometer	12.8 - 13.9	55.8 - 54.7	1.1	1	Rising Head Slug	Hvorslev	2.71E-05	1.17
4-1	Piezometer	34.8 - 61.0	23.32.9	26.2	1	Rising Head Slug	Hvorslev	9.92E-09	0.0003
4-3**	Piezometer	6.2 - 11.2	51.9 - 46.9	5.0	1	Constant Head		2.51E-05 to 2.91E-05	2.17
TW1	Open Hole	6.1 - 61	51.33.6	54.9	1	Constant Rate Pumping	Theis	4.0056E-08	0.19
							Jacob	1.68657E-08	0.08
							Theis Recovery	2.89036E-06	13.71
TW2	Open Hole	6.1 - 61.2	56.29 - 1.19	55.1	2	Step Pumping	Theis Recovery	8.40223E-08	0.4
					3	Step Pumping	Jacob	1.8695E-07	0.89
							Theis Recovery	3.80201E-07	1.81
					4	Constant Rate Pumping	Jacob (Slope 1)	8.23419E-07	3.92
							Jacob (Slope 2)	3.56885E-06	16.99
							Theis Recovery	1.23513E-06	5.88
TW3	Open Hole	12.8 - 68.9	56.070.03	56.1	1	Constant Rate Pumping	Jacob	1.54734E-07	0.75
							Theis Recovery	1.71239E-07	0.83
TW4	Open Hole	6.1 - 61	52.032.87	54.9	1	Constant Rate Pumping	Jacob (Slope 1)	1.26493E-07	0.6
							Jacob (Slope 2)	4.0056E-08	0.19
							Theis Recovery (Slope 1)	2.74067E-08	0.13
							Theis Recovery (Slope 2)	1.58116E-07	0.75
					2	Constant Rate Pumping	Jacob (Slope 1)	8.85448E-08	0.42
							Jacob (Slope 2)	5.48135E-08	0.26
							Theis Recovery	1.47575E-07	0.7
TW7-1	Open Hole	9.7 - 73.2	54.788.72	63.5	2	Constant Rate Pumping	Jacob	2.5E-09 to 4.6E-08	0.012 - 0.22
TW7-2	Open Hole	7 - 12.2	57.19 - 51.99	5.2	1	Constant Rate Pumping	Jacob & Theis Recovery	4.6E-06 to 5.9E-06	28.2
McLeod House	Open Hole	? - 91.4	?16.5		2	Constant Rate Pumping	Theis	-	0.19
						Constant Rate Pumping	Jacob	-	0.21
						Constant Rate Pumping	Theis Recovery		0.42
TW10	Open Hole	13.7 - 111.86	56.68641.474	98.2	1	Constant Rate Pumping	Theis	3.77313E-07	3.2
							Cooper-Jacob	2.07522E-06	17.6
TW11-1	Open Hole	20.12 - 116.4	53.42842.852	96.3	1	Constant Rate Pumping	Theis	3.77313E-08	0.32
					_		Cooper-Jacob	7.54626E-07	6.4

^{*} k value average of 6.34E-05 and 8.09E-05

Notes

- 1. For pump-tested wells, transmissivity reported by BGC, hydraulic conductivity calculated by McIntosh Perry. For slug-tested wells, "b" value used by BGC to calculate T does not necessarily correspond to screened interval.
- 2. Hydraulic conductivity analysis was not completed for all pumping tests. Only pumping tests where hydraulic conductivity analysis was completed are summarized here.

^{**} k value average of 2.51E-05 and 2.91E-05

Table 5 Summary of Laboratory Results Cornwall Gravel - MacLeod III and V Quarries

Sample ID					TW 10 1	TW 10 2	TW 11-I_1	TW11-I 2
Sample Date			00111000		08-Nov-16	08-Nov-16	_	10-Nov-16
Location	Units	MRL	ODWSOG	Limit Type	Macl	eod V	MacL	eod III
Parameter:						ĺ		ĺ
Alkalinity	mg/L	5	30-500	OG	287	279	272	287
Ammonia (N)	mg/L	0.01			0.42	0.6	0.82	0.49
Calcium	mg/L	1			3.68	16.5	28.3	20.7
Chloride	mg/L	1	250	AO	256	45	383	76
Colour	TCU	2	5	AO	22	7	ND	ND
Conductivity	uS/cm	5			1380	720	1740	821
Dissolved Organic Carbon	mg/L	0.5	5	AO	2	1.8	2.3	2.5
Fluoride	mg/L	0.1	1.5	MAC	0.8	0.4	0.5	0.4
Iron	mg/L	0.03	0.3	AO	0.27	ND	12.7	1.05
Hardness	mg/L	1	80-100	OG	17	100	175	129
Potassium	mg/L	1			5.64	6.83	10.5	6.52
Magnesium	mg/L	1			1.99	14.2	25.3	18.8
Manganese	mg/L	0.01	0.05	AO	ND	0.011	0.079	0.022
Sodium	mg/L	2	200	AO	274	96.2	251	106
Nitrate (N)	mg/L	0.1	10	MAC	ND	ND	ND	ND
Nitrite (N)	mg/L	0.1	1	MAC	ND	ND	ND	ND
рН		1	6.5-8.5	OG	8.5	8.2	8.2	8.3
Phenols	mg/L	0.001			0.004	ND	ND	ND
Sulphate	mg/L	1	500	AO	33	37	36	31
Sulphide	mg/L	0.02	0.05	AO	0.23	4.54	0.86	0.78
Tannin & Lignin	mg/L	0.1			0.4	0.8	0.1	ND
Total Dissolved Solids (Cond-Calc)	mg/L	1	500	AO	780	720	902	430
Total Kjeldahl Nitrogen	mg/L	0.1			0.5	0.6	8.0	0.5
Turbidity	NTU	0.1	5 ^a	AO	92.4	58.4	151	37.8
Escherichia Coli	ct/100mL	1	0	MAC	ND	ND	ND	ND
Faecal Coliforms	ct/100mL	1	0	MAC	ND	ND	ND	ND
Heterotrophic Plate Count	ct/1mL	10			220	60	10	30
Total Coliforms	ct/100mL	1	0	MAC	ND	ND	ND	1

Notes:

Field turbidity measurements were subject to a limit of 1.0

NTU (as per Procedure D-5-5)

MRL Method Reporting Limit

ODWSOG Ontario Drinking Water Standards, Objectives, and Guidelines

(MOECC, 2003 rev. 2006; PIBs 4449e01)

AO Aesthetic Objective

MAC Maximum Allowable Concentration (Health-Related Parameter)

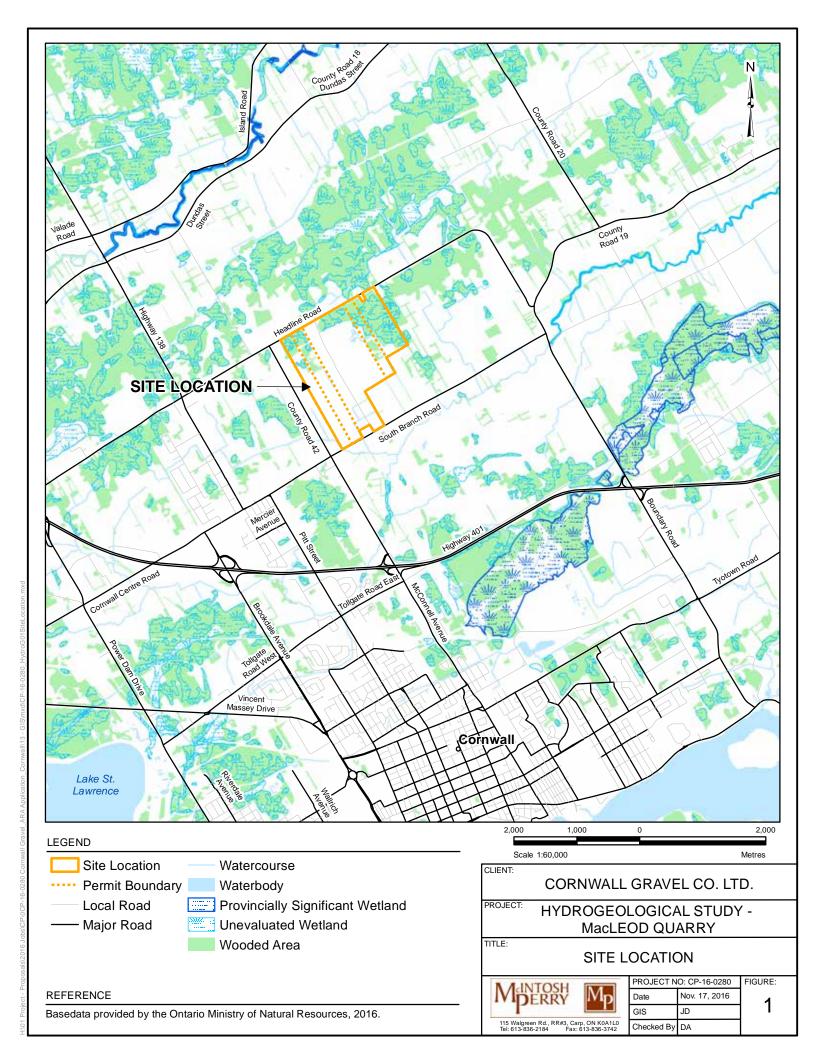
OG Operational Guideline
ND Non detectable
mg/L Milligrams per litre
TCU True Colour Units

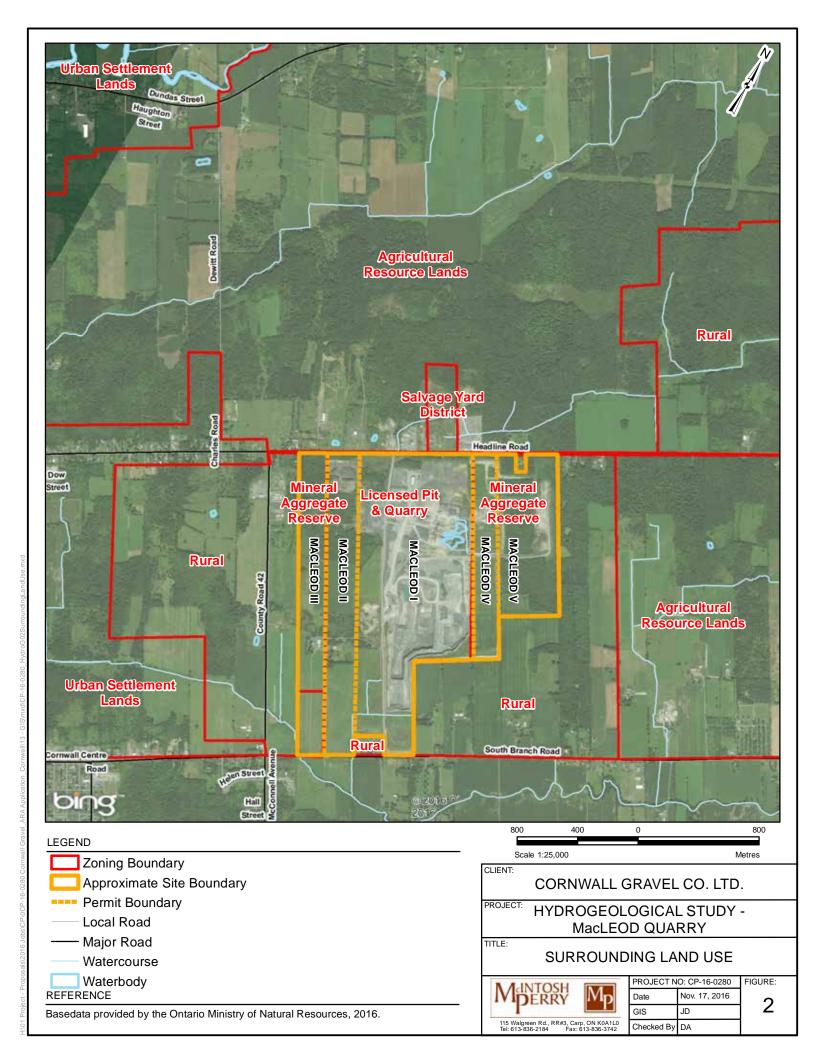
uS/cm Microsiemens per centimeter NTU Nephelometric Turbidity Units

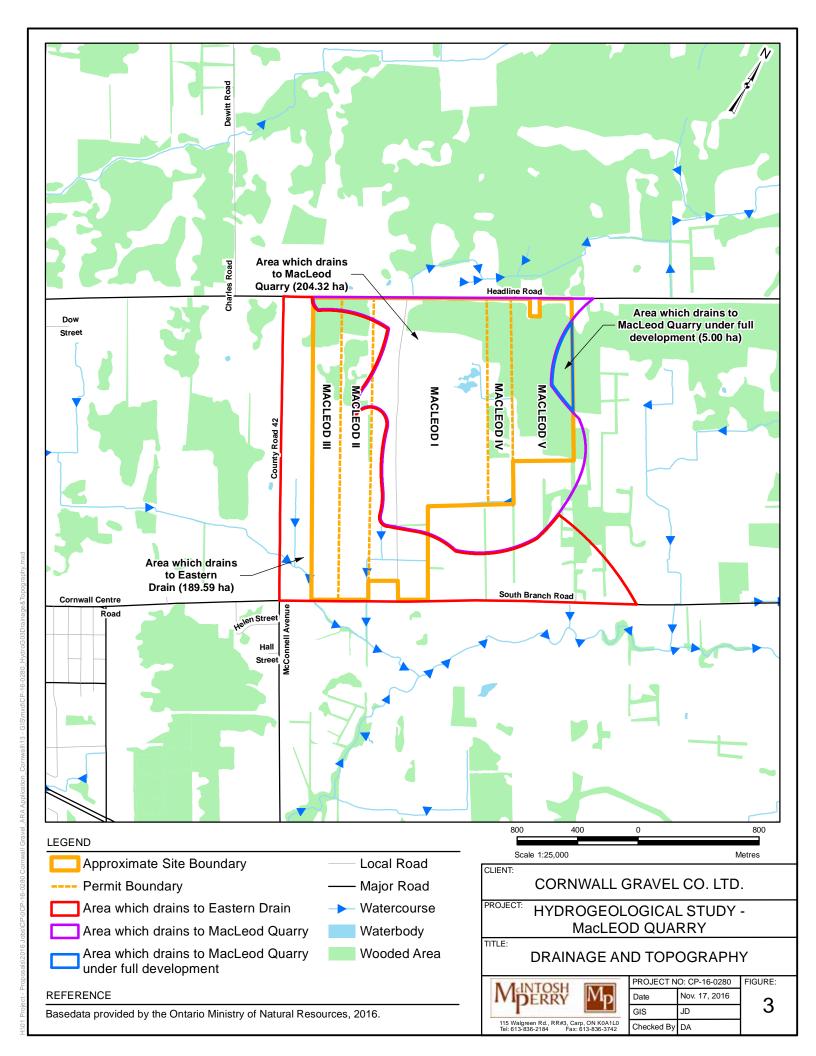
ct/100 mL Number of bacteria-forming colonies per 100 mL

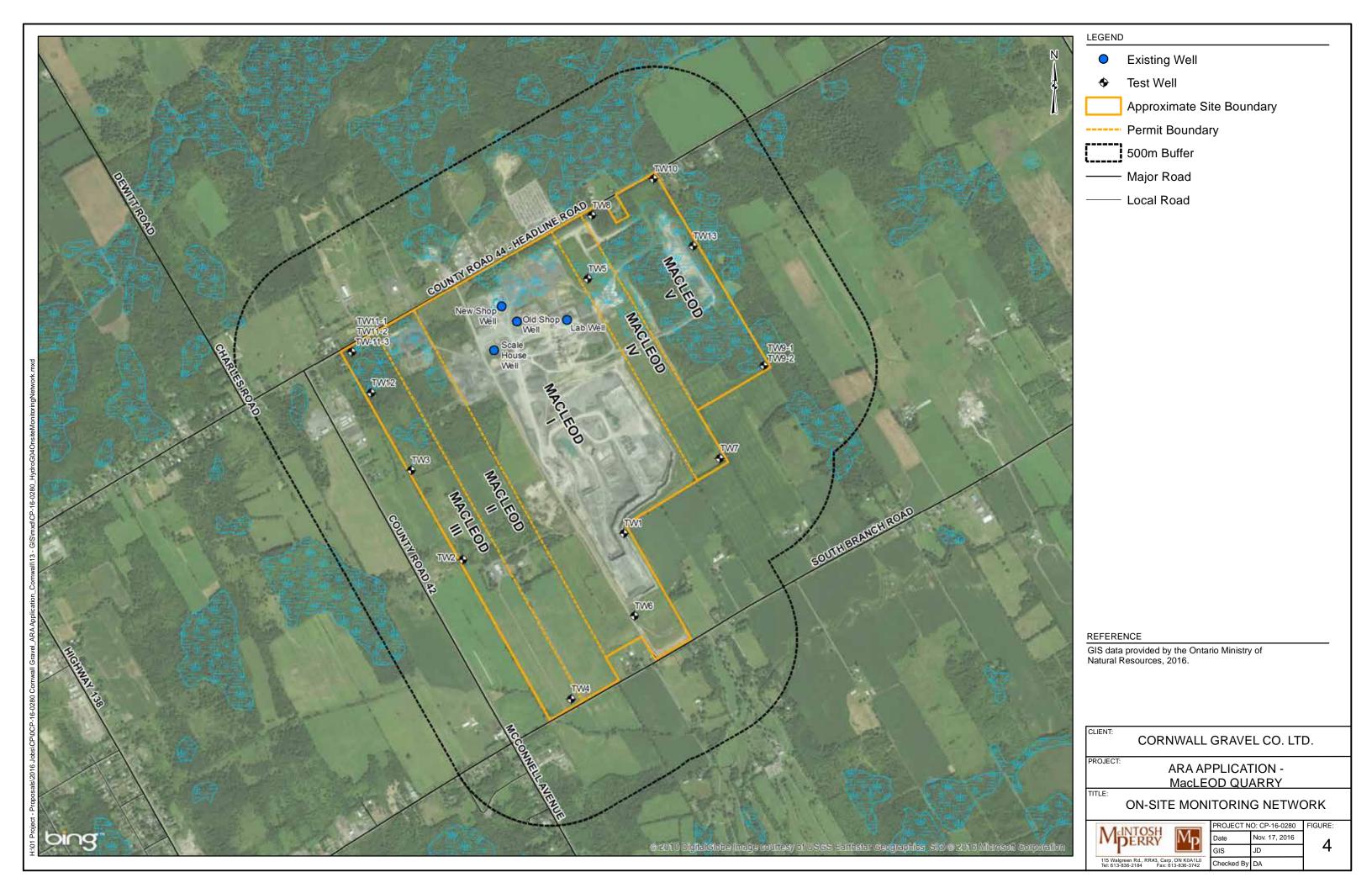
FIGURES

















APPENDIX A Borehole Logs



PROJECT: 936500

DRILL TYPE: rotary with

water

Hole Number: 1

DATE: November 14, 1994

Location: southeast of old McLeod residence

Depth	Stratigraphic Column	Install.	Major Bedding Planes & Soft Beds	Elevation (m asl)	Comments	Estimated Cumulative Yield (L/min)
	······································			60.4	0 to 4.57 m - OVERBURDEN 0 TO 1.52 is clay; from 1.52 to 4.57 - silty-sand till	
-				55.83 51.87	4.57 to 8.53 Bobcaygeon Formation - medium to thickly bedded limestones	<9
15 _		1-3	^{‡≨1} 46.68 ‡≨1 44.55	47.60	8.53 to 17.37 UPPER GULL RIVER FORMATION -thinly to medium bedded limestone with small shale partings	<9
-		. –	±≨¹ 38.76	43.03	17.37 to 60.96 m LOWER GULL RIVER FORMATION interbedded limestone, silty dolostone, quartz sandstone and shale	<9
		1-2	±≨1 1≤1 33.58	34.01	-thinly to medium bedded limestone with small shale interbeds	<9
30 _			30.53 to ±≲l 29.92 27.79 to ±≤l 27.48	c	-soft zones at 13.72, 15.85, 21.64, 26.82, 29.87 to 30.48, 32.61 to 32.92, 35.97 to 36.58, 38.71*, 60.35 to 60.96	<9
			24.48 to 23.82 ☆ 21.69		-*at 38.71 m was the level where the first noticeable green dolostone was encountered -the majority of the soft zones are shale beds	<9
45 _						<9
						<9
60		<u>, , , , , , , , , , , , , , , , , , , </u>	0.05			<9
⊍ ⊍ _ -		1-1	to -0.56	-0.56		<9

PROJECT: 936500

DRILL TYPE: rotary with water

Hole Number: 2

DATE: November 14, 1994

Location: west of existing quarry, on central bedrock area on McLeod III

Depth	Stratigraphic Column	Install.	Major Bedding Planes & Soft Beds	Elevation (m asl)	Comments	Estimated Cumulative Yield (L/min)
©		 		63.1 60.97 58.83	0 to 2.13 m - OVERBURDEN/BEDROCK - slabs of bedrock interbedded with till	+ .
-					2.13 to 4.27 Bobcaygeon Formation - medium to thickly bedded limestones 4.27 to 14.02 UPPER GULL RIVER	<9
15		<u> </u>	<u></u>	49.00	-thinly to medium bedded limestone with small shale partings	<9
					14.02 to 60.96 m LOWER GULL RIVER FORMATION -interbedded limestone, silty dolostone, quartz sandstone and shale	<9
			±3 41.46 41.15 to ±3 39.94		-thinly to medium bedded limestone with small shale interbeds -soft zones at 21.64, 21.95 to 23.16, 34.14, 40.54 to 42.67, 46.33, 46.94 50.90, 52.12 -most of the water was encountered	<9
30 _			_{1≲1} 28.96		at 34.14 and 40.54 to 42.67 m	<9
			123			<25
45 <u> </u>			22.56 to 20.43			<25
			16.77 1€1 16.16 1≤1 12.20			<35
			<i>t≲</i> ∤ 10.98			<35
60				2.14		<35

PROJECT: 936500

Hole Number: 3

DATE: November 14, 1994

Location: northwest to north central portion of McLeod III

DRILL TYPE: rotary with

water

Depth	Stratigraphi Column	C Install.	Major Bedding Planes & Soft Beds	Elevation (m asl)	Comments	Estimate Cumulativ Yield (L/min)
Ø			+ · · · + · · · ·	. 69.0		+
					0 to 11.28 m - OVERBURDEN - till, silty sand for upper 3.66 m the grades into dense sandy-silt	<5
15		3-3		57.72 55.08 54.67	11.28 to 14.33 m Bobcaygeon Formation - medium to thickly bedded limestones	<5
I⊌			t≨ì		14.33 to 24.38 m UPPER GULL RIVER FORMATION -thinly to medium bedded limestone with small shale partings	• <9
			<u>t≲1</u> .	44.62		<9
30		3-2		42.61	24.38 to 65.84 m LOWER GULL RIVER FORMATION -interbedded limestone, silty dolostone, quartz sandstone and shale	
<u> </u>			±≤1 38.22 ±≤1 36.39			<9
					-thinly to medium bedded limestone with small shale interbeds	<9
- -			H ₂ S 121 28.46		-soft zones at 30.78, 32.61, 40.54, 57.20, 58.52 and 65.84 m	<23
45					-at 40.54 n there was a distinct sulphur smell -the majority of the soft zones are shale beds	<23
						<23
60			±≤1 11.76 ±≤1 10.48			<30
		3-1	<u>1≶</u> 1 3.16	3.16	65.84 to 67.06 m ROCKCLIFFE FORMATION (possibly)	
	<u> </u>			1.94	-limestone, silty dolostone, quartz sandstone and shale	<30

PROJECT: 936500

Hole Number: 4

DRILL TYPE: rotary with

water

DATE: November 14, 1994

Location: south central portion of McLeod III, east side of farm access road

	farm access road								
Depth	Stratigraphic Column	Install.	Major Bedding Planes & Soft Beds	Elevation (m asl)	Comments	Estimated Cumulative Yield (L/min)			
©		7///		53.92	0 to 5.18 m - OVERBURDEN - clay to 0.61 m, 0.61 to 4.72 is a silty sand till, from 4.72 to 5.18 m is sand and gravel * - 5 to 5 IGPM is present in the sand and gravel 5.18 to 12.80 m Bobcaygeon Formation - upper 1 m consists of slabs of bedrock	13 - 23			
15		4-3		47.88 46.30	and till below; medium to thickly bedded limestones 12.80 to 20.73 m UPPER GULL RIVER FORMATION	<5			
_			1≲1 42.95	38.37	-thinly to medium bedded limestone with small shale partings	<5			
30 _		4-2	⊅≲ 31.06 to ⇒ 30.45	27.01	20.73 to 60.96 m LOWER GULL RIVER FORMATION -interbedded limestone, silty dolostone, quartz sandstone and shale -thinly to medium bedded limestone with small shale interbeds -soft zones at 16.15, 20.73, 28.04, 28.35, 28.65, 33.83, 34.75, 45.11, 47.55, 46.94 48.16 and 57.0 to 57.3	<9			
45 -			±≨1 25.27 24.35		-the majority of the soft zones are shale beds	<9 <9			
			12.16 to 10.94			<14			
60		4-1 60.96	±≤1 2.10 to 1.80	-1.86		<14			

464 PØ2 JAN 25 'Ø1 16:40 The Ontario Water Resources ACI WATER WELL RECORD

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Mark correct box with a checkmark, where applicable.

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m Fresh Sulphur		Concrete				Final water level end of pumping	3	3	
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fter test of well yield, water was		Concrete				If flowing give rate - (litres/min)	20 25	20 25	
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TW 6-2 Well Tag No. (Place Sticker and/or Print Below) Well Record Ministry of the Environment Regulation 903 Ontario Water Resources Act A106105 Page ∭'Metric ☐ Imperial asurements recorded in: Well Owner's information Last Name / Organization E-mail Address ☐ Well Constructed Cornual Grave Compleyy by Well Owner Lld Telephone No. (Inc. area code) Municipality Province KI6145K961139 Well Location Concession Address of Well Location (Street Number/Name) City/Town/Village The Albert Charles on the Province County/District/Municipality Postal Code Ontario 医医医院医院 Municipal Plan and Sublot Number Öther UTM Coordinates Zone Easting Northina 71215141619141 NAD [8]3 / 8 5 [4]01 Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form) Depth (m/ft) General Description General Colour Results of Well Yield Testing Annular Space Volume Placed Depth Set at (*m/ft)* Type of Sealant Used After test of well yield, water was: Draw Down Recovery Time (m³/ft³) Time Water Level Clear and sand free From (Meterial and Type) Water Leve (m/ft) (min) (m/ft) (min) Other, specify 65 Static If pumping discontinued, give reason: Love 1 Pump intake set at (m/ft) 2 2 3 3 Pumping rate (I/min / GPM) Well Use Method of Construction 4 4 Cable Tool Diamond 1 Public Commercial Not used Duration of pumping ☐ Municipal ☑ Test Hole ☐ Dewatering Rotary (Conventional) Jetting Domestic 5 5 min hrs + ☐ Livestock K-Y Monitoring 🔲 Rotary (Reverso) ☐ Driving Irrigation inal water level end of pumping (m/tt) Cooling & Air Conditioning Goring 🔲 □ Digging 10 10 Air percussion
Other, specify ☐ Industrial | Other, specify /15 15 If flowing give rate (I/min / GPM) Construction Record - Casing Status of Well 20 20 ☐ Water Supply Recommended pump depth (m/ft) Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel) Insido Wall Thicknes (em/in) Replacement Woll 25 25 From To Test Hole Recommended pump rate (I/min / GPM) ----30 30 ☐ Recharge Well 5 1-c1 . (73 バゴち □ Dowatoring Well 40 40 1200 Open Mate **₩**Observation and/or Well production (I/min / GPM) Monitoring Hole 50 50 ☐ Alteration Disinfected? (Construction) 60 60 | Yes | No ... Abandoned, Insufficient Supply Map of Well Location Construction Record - Screen ☐ Abandoned, Poor Water Quality Please provide a map below following instructions ଡ୍ରି୩ the back. Outside Depth (m/ft) Material Diameter Slot No. Abandoned, other, stic Gatvanized Steet) spacify Other, specify Water Details Hole Diameter Depth (m/ft) Water found at Depth Kind of Water: | |Fresh | Untested From (cm/in) (m/ft) | |Gas | Other, specify 2123 Water found at Depth Kind of Water: | |Fresh | |Untested 2 0 (m/ft) | |Gas | | |Other, specify Water found at Depth Kind of Water: | Fresh | |Untostod (m/ft) | Gas | Other, specify Well Contractor and Well Technician Information Well Contractor's Licence No. Muhicipality (1) usiness Address (Street Number/Name)
Sovince Postal Codo Bus Comments: Business E-mail Address (C) 19 | C | C | Well Technician (Last Name, First Name) Well owner's Ministry Use Only Date Package Delivered information package delivered Y | Y | Y | Y | M | M | D | U Well Technician's Licence No. Signature of ENJEK KITCHAEL Fechnician and/or Contractor Date Submitted z131557 Date Work Completed | | Yeş.

1.4/Mo

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Well Tag No. (Place Sticker and/or Print Below)

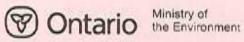
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Well Record Regulation 903 Ontario Water Resources Act

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	PASSI	135		TW 7-1		Page_		of
Well Owner's Information								V ACCAL
First Name CORnwall GRevel	Consultd	ail Address	NA			- Y	vell Cor by Well	nstructed Owner
Mailing Address (Street Number/Name, RR)	Municipality	1011	Province 4	Postal Code	9 7 T	elephone N	0 (ine. 1	area code)
Part A Construction and/or Major Alteration of a	CONTROL NO.	ano	10 10		1.0	1310	10	12//
Address of Well Location (Street Number/Name, RR)	Township	the s	Stormort	Lot 4	C	oncession		
County/District/Municipality	City/Town/Village	0			Provinc	新担VIII	Postal	Code
UTM Coordinates Zone Easting Northing	GPS Unit Make	Model	Mode of 6			entiated	10 To	raged
NAD 8 3 1 8 5 5 5 5 7 7 9 7 9 7 Overburden and Bedrock Materials (see instructions on	PORCON	Mag	class Differe	ntiated, specify_				
General Colour Most Common Material	Other Materials		General D	escription			Depth	(Motres) To
Boun Clay, a	rest !		Hand	/)	2.63
Cary livestone			Layene	1		5	12	29.79
					-		-	
			15-11-1					
Annular Space/Abandonment S- Depth Set at: (<i>Matres</i>) Type of Sealant User		Placed	Check box if after ter	Results of We	data and the same	Testing w Down	R	ecovery
From To (Material and Type)	(Cubia M		water was	15 5	Time (Min)	Water Level	A LANGUAGE AND THE REAL PROPERTY AND THE PERTY AND THE PER	Water Level (Motres)
0 9.7 Weenest gr			Cannot develop		Static Level		Static	
			If pumping discontinu	ued, give reason:			1	
			Pumping test method	od	2		2	
Method of Construction	Water Use		Pump intake set at	(Metres)	3		3	
Cable Tool Diamond Public Rotary (Conventional) Jetting Domestic	Commercial No	ot used	Pumping rate (Litre	n/min)	4		4	
Rotary (Reverse) Driving Livestock	Test Hole	ewatering onitoring	Market Andrews	(1)(1)	5		5	
☐Rotary (Air) ☐ Digging ☐ Irrigation ☐ Air percussion ☐ Boring ☐ Industrial	Cooling & Air Conditionin	ng	Ouration of pumpin hrs +	min	10	10	10	
Other, specify Other, specif	/		Final water level end (Metres)	of pumping	15	4	15	
□ Water Supply	Observation and/or Monito Alteration (Construction)		Recommended pur	DESCRIPTION OF STREET	20	/	20	
□ Test Hole □ Abandoned, Poor Water Quality □ Recharge Well □ Abandoned, other, specify			Shallow Recommended pur	Deep np depth	30		25 30	
Location of Well			Metre	18	40	-	40	
Please provide a map below showing: - all property boundaries, and measurements sufficient to locate	e the well in relation to fixed poi-	ints,	(Litres/min)	mp rate	50		50	
 an arrow indicating the North direction detailed drawings can be provided as attachments no larger t 	han legal size (8.5" by 14")		If flowing give rate (Litres/min)		60	-	60	
- vidigital pictures of inside of well can also be provided	114			Water	Detail	et .	100	
	100		Water found at De	epth Kind o	of Wate	Carrier III. 188	125	-
	- w= 17		Water found at De	Total Section 1	of Wate	SCALARY THREE	ulphur	Minerals
	500 M		Water found at Do	Company of the last of the las	sh 🗆	Salty []S	ulphur	Minerals
	1		Metres			Salty 🗆 S	ulphur	Minerals
			Casing Used	Screen Used	-	Casing a meter of the		
			Galvanized	Galvanized Steet		155	5	TOTAL CONTRACT
Date Well Completed Was the well owners information	Date the Well Record and Paci	kage	Fibreglass Plastic	Fibreglass Plastic	00	pth of the Ho	e (Metri	(41)
(yyyy/mm/dd) package delivered? Yes No	Delivered to Well Owner (yyyy/	/mm/dd)	Concrete	Concrete		II Thicknoss	(Metres)	
Well Contractor and Well Techni Business Name of Well Contractor	CHARLES AND ADDRESS OF THE PARTY OF THE PART	respective to a	No Casing ar	nd Screen Used	Ins	de Diameter	of the C	lasing (Metres,
Barrell De	Well Contractor's Lio	cence No.	Disinfected?		De	pth of the Ca	sing (Me	o(rea)
Business Address (Street No Name, number, RR)	Municipality		☐ Yes ☐ Ño	Mada	. 11-	1. 7.	The state of the s	
Province Postal Code Business E-mail	Address		Audit No. 7 Q	Ministry 819	green by his department of the partment	ontractor No		
Bus. Telephone No. (inc. area code) Name of Well Technician	(Last Name, First Name)		Date Received (yyyy		Date of	Inspection (vyy/ma	Vdd)
61/139919791 Michol	1 anier						awarnini.	



Well Tag N	A 057436
AO	57/736

(2)		Wel	l Re	cord	ł
egulation 903	Ontario	Water	Resou	rces Ac	t

		1-10	2/156		1 1 1 1 2			01
Well Owner's Info	ormation		TO THE PROPERTY OF THE PARTY OF			-502	-part was	
First Name	Last Nam	e p	E-mail Address	A contractor		1	Well Co	nstructed
CDBMU	1/a / / //	melcomp 1+d		WI		-	by Wel	nstructed Owner
Mailing Address (Stre	et Number/Name, RR)	Muhicipality		Province	Postal Code	Telephon	No. (ina.	area code)
POPDY 6	the state of the s		Opnual	ON	11614151	R1961131	932	61571
	on and/or Major Altera				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		8 1 - 11 - 12 - 12	
Address of Well Local	tion (Street Number/Name	(1903) D (2003)	1000	in open	Lot	Concess	an	
Heady	me Soull	Oranch 50		2 Minor	4	7	1	who are a second
County/District/Munic	A CONTRACTOR OF THE PARTY OF TH	City/Tow	vn/Village	11		Province	4.50	Code
UTM Coordinates Z	one Easting No	orthing GPS Unit I	UIM	was		Ontario	1716	45111
	IC CIDIO CIOIS	TO THE CONTRACT OF THE PROPERTY OF	Make Model	W 0000000000		Undifferentiated	SAV	oraged
	1915/1915/1916/1/	1971/9016 (170	1760	# // Con Differe	entiated, specify_			
The contract of the contract o	Most Common Material	ructions on the back of this form) Other Materials					Dect	n (Metres)
General Colour	wost Common Material	Other Materials		General	Description		From	To
Brusen (lair	Stanol	/	lared ,			1	7
Com	1 1 t	A TO A STATE OF THE PARTY OF TH		and a self			7	10 6
	20120000			7				15.17
				<i>e</i>				
							_	
					1			
Depth Set at (Metres)	Annular Space/Abando		A Call Care - Par	Charle have Control	Results of We		~	
From To	Type of Se (Material a		Volume Placed (Cubic Metres)	Check box if after to water was:	st of well yield.	Draw Down Time Water Le	AND ALL NO. OF THE PERSONS ASSURED	Recovery Water Level
		/	110	Clear and sand	Control of the contro	(Min) (Metro	A 70 THE RESERVE OF T	(Metres)
0 /	ament	grow!	Dag	Cannot develo	p to sand-free	Static	Static	
			0	If pumping discontin	ued, give reason	Level	Level	
						1	1	
				Pumping test meth	od	2	2	
				VISIONE THE SHOW A	90.			_
Method of Co	onstruction	Water Use		Pump intake set at	(Metres)	3	3	
Cable Tool	□ Diamond □ P.		☐ Not used			4	4.	
Retary (Conventions	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	omestic Municipal	Dewatering	Pumping rate (Litre	s/min)	5	5	_
Botary (Reverse)	10000 CACOM.	vestock76st Hole	☐ Monitoring	M.C. THESE STANFOLD	1	0 10	9	
Rotary (Air) Air percussion		igation Cooling & Air Co	and tioning	Duration of pumping	9/	10 //	10	9.0
Other, specify		ther, spearfy		hrs +	mig	15/	15	
	Status	NAMES OF TAXABLE PARTY OF TAXABLE PARTY OF TAXABLE PARTY OF TAXABLE PARTY.		Final water level gne (Metres)	d of pumping	1 1	10	
☐ Water Supply	Dewatering Well	☐ Observation and	for Monitoring Hole	1/		20/	20	
Replacement Well	Abandoned, Insufficie		struction)	Recommended pu	Deep Deep	25	25	
Test Hole	Abandoned, Poor Wa			Recommended pu	SUBSECTION ASSESSMENT	-0.5	- 50	
Recharge Well	Abandoned, other, sp				96 6	30	30	
Discount		n of Well		Recommended ou		40	40	
Please provide a map t - all property boundarie	s, and measurements sufficient	ant to locate the well in relation to	fixed points.	Recommended pur (Litres/min)	0.05,00000		200	
- an arrow indicating the	e North direction		AND ALL STANDARD	If flowing give rate		50	50	
 detailed drawings can vidigital pictures of ins 	de provided as attachments ide of well can also be provid	no larger than legal size (8.5" by	14")	(Litres/min)		60	60	
		1	17					
			^ '	Water found at D	and the latest and th	Details		
				K Metres	CONTRACTOR	of Water sh Salty [Sulphur	Minerats
		SCOON		Water found at D	The second secon	of Water	Todap.idi	
		And the same of		Metres	THE RESERVE THE PROPERTY OF THE PERSON OF TH	sh Salty	Sulphur	Minerals
				Water found at D	Control of the second	of Water		
		/		Metres	Gas Fre	sh Salty	Sulphur	☐ Minerals
				Casing Used	Screen Used	Casino	and Wel	I Details
				Galvanized	Galvanized	Diameter of t		
				L8feet	Steel	(5.	55	
				Fibreglass	Fibreglass	Depth of the	Hole (Metr	08)
Date Well Completed (yyyy/mm/dd)				Plastic	Plastic	120	72	
sook Inelie	package delivered? Yes	Delivered to Well Own	ser (yyyymmrad)	Concrete	Concrete	Wall Thickne	ss (Metres,)
		Il Technician Information		No Casing ar	nd Screen Used	Touris Starra	for of the	asing (Metrex)
Business Name of We			sctor's Licence No.	Den Hole		maide Diame	S C	maing (Metrea)
Bourge		1001/11/11/11/11	11111	Disinfected?	1	Depth of the	Casino /M	otroa)
Business Address (Str	reet No./Name, number, RF	(Municipality	101 / 100	Yes No		20071101010	0/	
1107 600	Manual Commence of the commenc	1/2=+	.60		Ministry	Use Only		
	THE REPORT OF THE PARTY OF THE	s E-mail Address		Audit No O		Well Contractor	No.	
Ocho"	KICIAISCIC	11-1-1		Audit No. 2 79	820		431	
Bus. Telephone No. (ind	area code) Name of Well T	echnician (Last Name, First Name	me)	Date Received (yyy)	Contractor and Asia	Date of Inspectio	n (yyyy/mm	Vda)
61139999	te No. Signature of Technic	rais / Genin		AND AND AND ASSESSMENT				
Well Technician's Licence	e No. Signature of Technic	an Date Subm	nitted (yyyy/mm/dd)	Remarks				
13/4/91	3 1999	HANNEY TO THE PROPERTY OF THE	8 h5/15	MARIA MININA				17-1
0506E (11/2006)		Wal	Owner's Con	OV.		Ø Que	on's Printer	for Ontario, 2006

	Ministry of he Environment	Well Tag	Number (Plac	se sticker and prin	I number below)	250 V. W. W. 8285		Wel	I R	ecord
		7	100	Q (7)	2	Regulation 903				
Instructions for Completin	I TO SECTION OF COMPANY AND ADDRESS OF THE PARTY OF THE P	سا.	403	0/5		New Shop			age_	— of —
 For use in the Province All Sections must be con Questions regarding com All metre measurement Please print clearly in blu 	npleted in full to av opleting this applica is shall be reporte	oid delays ation can b ad to 1/10"	in processing directed to	ng. Further in the Water \	estructions and	explanations are ava	ilable o 416-23	o the bar	ck of	this form.
Well Owner's Information	and Location of			MUN	l cc		Щ		LOT	
COBN Waif	Last Name		0 1/4 /	ailing Address PoBeyo6	Street Numbe	r/Name, RR.Lot,Conc - Leventh	54 -	_		
County/District/Municipality	COA	nip/City/Tow	n'y illage	7,077		Code Teler	3- 9	lumber (i メスーし	include	e area code
Address of Well Location (County armon 50 ath	BRand)	To	waship	St ormo	Lot		Concer		
RRII/Street Number/Name	b l			City/Town/Vil		A Site/Compa	rtment/l	Block/Tre	act etc	o,
SPS Reading NAD Zon		North	ning	Unit Make/Me	gdel Mode	of Operation: Undi	fferentiate	Colored Street World Street	PAvere	aged
_og of Overburden and Be		(see inst	92650 ructions)	Mazell	12 L	L. Fran Diffe	rentiated.	specify	-	
Seneral Colour Most common	material	Other Ma	terials		Genera	Description		Dept		Metres To
Rom till					then	1		0		3.70
rey +ill	0			+	Para				0	12.80
Try grand	Some			_	1 and	Teal	-	1280		3048
77					J			1100		201/
					10-00		7.54			
		-		_						
Hole Diameter Depth Metres Diameter		Cons	truction Rec	ord		Name and Address of the Owner, which the	t of We			
From To Centimetres	MINITE .	terial	Wall thickness	Depth	Metres	Pumping test method	Time W	Down ater Level	Time	Water Leve
0 14,02 21,23	centimetres	A TRA	Contimetres	From	То	Pump intake set at -	Static	Metres	min	Motros
1402 3048 553	di Steel	Fibreglass	Casing			(metres) 2 7 Pumping rate	Level -	5.40	1	7.40
Water Record	15.55 Plastic	Goncrete	0+8	70.60	14.02	(litres/min) HO	2 6	46	2	1.0010000
Vater found LMetres / Kind of Water	Steel	Fibregiass			5, 1222,733.4	hrs + O min				17
Gas Salty Minerals	Plastic Galvan	Concrete			1000	of pumpingmetres		.55	3	7,00
Other:	Steel	Fibreglass				Recommended pump type. Shallow Deep		10	4	6.65
Gas Salty Minerals	Plastic Galvan	Concrete				Recommended pump depth. 27 metres	et !	2.15	5	6.46
m Fresh Sulphur			Screen			Recommended pump	10 7	57	10	6.00
Gas Salty Minerals Other:	Outside Stool	Fibreglass	Slot No.			(litres/min)	15 2	7.95	15	5.96
After test of well yield, water was Clear and sediment free	Galvan	Concrete				(litres/min)	25	802	25 30	
Other, specify		No C	asing or Scr	een		If pumping discontin- ued, give reason.	40 8	53	40	
Chlorinated Yes No	∂ Open t	nole		14.02	3048		60	867	60	-
Plugging and Sc	ealing Record	Annula		bandonment	Service of the servic	Location	of Well	Commen	Lygin	-UV-
Pictri	pe (bentonite slurry, neat		(cub	ne Placed c metres)	in diagram below indicate north by	v show distances of well fr arrow.	om road	lot line, a		
O 17 Cerna	1 Dw		10 4	Days	S STEACH DAY STAND AND SAN	- 1 · 1		n	1	y nog
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	Method of Constru	ction			Carpo	of 11 no , will will	1/2	500		
Cable Tool Rotary	(air)	Diamond	Ę	Digging	66-	.0	1	2	2	
Rotary (reverse) Boring		☐ Jetting ☐ Driving		Other	0000	ind	6			0
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Stock Comm Irrigation Municip	71/17/77/	Not used Cooling & a	nir conditioning		Audit No	Do	te Well C	Detelano	775.00	0 - 14 DA AN - 200
	Final Status of W	/ell			- la	42700		0	0	106 9
	, insufficient supply	Unfinished Dewatering	1 - 2/4/10/10/20	loned, (Other)	Was the well ov package delivere	plants	te Delive	40 V	WYY :	MM DD
Well Cor	, poor quality ntractor/Technician	THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	on			Ministry Us				
Name of Well Contractor	P zeon	io	reli Contractor's	Licence No.	Data Source	Co	ntractor			
Business Address (street name, num	ber. city (c.)		,,,,,		Date Received	YYYY MM DD Da	te of Insp	ection y	////	MM DD
Name of Well-Lechnician (last name,	first pame)	Tia	(-0 Tb-	Vices on No.	7027	I I w	ell Recon	d Number		1 1
		1	ell Technician's	Licence No.	Remarks	700		A 1200 (2010)		
Signature of Technician/Contractor			0-19	3 Y MM 199 I CK 199	Remarks	172		7.27.49.15		

Lab Well Well Tag No. (Place Sticker and/or Print Below) Well Record Ministry of Ontario the Environment Regulation 903 Ontario Water Resources Act A106104 Motric Page surements recorded in: □ Imperial Well Owner's Information Last Name / Organization First Namo F-mail Address Mailing Address (Street Number/Name) Company by Woll Owner Postal Code Telephone No. (inc. area code) Province 146H61K13161318161317 Well Location Address of Well Location (Street Number/Name) Concession Township 1 1 County/District/Municipality Province Postal Code UTM Coordinates Zone (Easting Ontario KI Shats Ki Li Other Northing NAD 8 3 / 12 5 / 57 6 719/12/612 Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form) Depth (*m/ft)* From To General Colour General Description \mathcal{O} \mathcal{O} Results of Well Yield Testing Annular Space Type of Sealant Used (Material and Type) Volume Placed (m³/ft³) After test of well yield, water was: Depth Set at (m/ft) Draw Down Water Level Time Water Level ☐ Clear and sand free (min) Other, specify Static If pumping discontinued, give reason: 5.01 Leve Pump intake set at (m/ft) 2 2 $\bigcirc\bigcirc$ Pumping rate (Vmin / GPM) 3 3 Method-of-Construction Well Use 4 4 Diamond ☐ Commercial Cable Tool ITI Public ☐ Not used Duration of pumping Municipal Domestic Rotary (Conventional) ☐ Jetting Dewatering 5 hrs + 5 ☐ Test Hole min ☐ Rotary (Reverse) Driving Livestock Monitoring Final water level end of pumping (m/ft) Boring Digging Trigation Cooling & Air Conditioning 10 10 Air porcussion ☐ Industrial Other, specify If flowing give rate (I/min / GPM) i | Other, spe 15 .18 Construction Record - Casing Status of Well 20 20 Dopth (*m/ft*) Inside Open Hole OR Material Wall Recommended pump depth (m/ft) Diameter (cnvin) (Galvanized, Fibreglass, Concrete, Plastic, Stool) Thickness Replacement Well 25 25 Recommended pump rate ☐ Test Hole Recharge Well 4.6 146 1.35 4.753 Well production (I/min / GPM) Dewatering Well 40 40 Observation and/or Monitoring Hole 14.55 50 50 ☐ Alteration Disinfacted? (Construction) Yes | No Abandoned, Insufficient Supply Map of Well Location Construction Record - Scree Abandoned, Poor Water Quality Please provide a map below following instructions on the back. Outside Depth (m/ft) Material (Plastic, Galvanized, Ste Diamete (cm/in) Slot No. Abandoned, other, specify ☐ Othor, specify Water Details Hole Diameter Water found at Depth Kind of Water: | Fresh | Wintested From (cm/in) (n/ft) | |Gas | | Other, specify Water found at Depth Kind of Water: | |Fresh | |Untested 111.6 \bigcirc (m/ft) | Gas | Other, specify Water found at Depth Kind of Water: | |Fresh | |Untested (m/ft) | Gas | Other, specify Well Contractor and Well Technician Information Business Name of Well Contractor Comments: NUATTON Well owner's information package delivered Ministry Use Only Date Package Delivered (Last Name, First Name) Y | Y | Y | Y | M | M | O | D z131556 Date Work Completed | | Yos +M + OK/No 4 4 M M (8 1 4 CM & 8 X X X W W N D Well Owner's Copy

PROJECT No: CP-16-0280 LOGGED BY: DA

SITE: Cornwall Gravel - MacLeod III & V Properties DRILLER: Bourgeois Well Drilling
CLIENT: Cornwall Gravel DATE DRILLED: 29-Aug-16

		avel		DATE DRILLED: 29-Aug-16
- Depth	Symbol	DESCRIPTION	Elevation	Well Comple t ion Details
4 ft m		Ground Surface	67.230	
6—		Silt and clay with some sand and gravel		
16—				
26 — 9		Boulder	59.610 7.620	
36—		Shalu Limastana	54.428 12.802	
46 —		Shaly Limestone		☑ ☑ ☑ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
56 — — 19		Limestone sublithographic, dark to medium grey	48.942 18.288	
66 —				
76 —				
86—				
96 — 29 NOTES: I		n meters above sea level (m asl) EASTIN	IG:	ELEVATION - TOP OF PVC RISER:

- Provided by Cornwall Gravel

NORTHING:

REVIEWED BY:

MAP DATUM:



PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: DA

DRILLER: Bourgeois Well Drilling

REVIEWED BY:

TEMPLATE: MP - MW only

DATE DRILLED: 29-Aug-16

Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details
106 —				
116 —				
126 — 3				
136 —				
146 —				
156 —				
166 —	9			
176 —				
186 —				
— 5 196 —	9			
NOTES	6: Elevations ir	n meters above sea level (m asl) EASTIN	IG:	ELEVATION - TOP OF PVC RISER:

NORTHING:



PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: DA

DRILLER: Bourgeois Well Drilling

REVIEWED BY:

TEMPLATE: MP - MW only

DATE DRILLED: 29-Aug-16

Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details
206 —				
216 —				
226—	69			
236 —				
246 —				
256 —	79			
266—				
276—				
286 —	39			
296 — NOTE	S: Elevations in	n meters above sea level (m asl) EASTIN	G:	ELEVATION - TOP OF PVC RISER:

NORTHING:

PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: DA

DRILLER: Bourgeois Well Drilling

REVIEWED BY:

TEMPLATE: MP - MW only

DATE DRILLED: 29-Aug-16

Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details
306 —				
3 16 —				
326 —	10			
336 —				
346 —				
356 — —	110	End of hole	-42.498 109.728	
366 —		Well terminated in bedrock at target depth		
376 —				
386 —				
396 —	120	n meters above sea level (m asl) EASTIN		ELEVATION - TOP OF PVC RISER:

NORTHING:

PROJECT No: CP-16-0280 LOGGED BY: DA

SITE: Cornwall Gravel - MacLeod III & V Properties DRILLER: Bourgeois Well Drilling CLIENT: Cornwall Gravel DATE DRILLED: 30-Aug-16

CLIENT	CLIENT: Cornwall Gravel			DATE DRILLED: 30-Aug-16			
Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details			
-4 <u>ft</u> m		Ground Surface	67.060 0.000	1 8			
6—		Silt and clay with some sand and gravel					
16 —			E0 440				
26 — 9		Boulder	7.620				
36—		Shaly Limestone	54.258 12.802				
46 —		Snary Limestone		□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □			
F/		Deepened from 15.24 to 18.29 m with cable tool on Oct 11, 2016	51.820 15.240				
56 —			48.772 18.288				
- 19	9	End of hole	18.288				
66 —							
76 —							
86 —							
96 — 29	9						
NOTES	NOTES: Elevations in meters above seal level (m asl) ELEVATION - TOP OF PVC RISER:						

- Provided by Cornwall Gravel

NORTHING:

REVIEWED BY:

MAP DATUM:

PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: TM

DRILLER: Bourgeois Well Drilling

DATE DRILLED: 31-Aug-16

CLILIVI	CLIENT: COTTWAII Graver			DATE DRILLED: 31-Aug-16
- Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details
-4 <u>ft</u> m	** ₍₆ 1 * * ₍₆ 1 * *	Ground Surf	face 70.310	
6 —		Till Till with boulders	0.000	
16 —		Silty Clay grey, with <10% gravel	65.433 4.877	
26 — 9		Boulders in Silt Sand	62.080 8.230 60.861 9.449	
36 —	\$200 \$200 \$2	Sandy Gravel Bedrock	59.032 11.278 58.118 12.192	
46 —		Fracture		
56 —	9		51.108 19.202	Open hole in bedrock
66 —		Fracture Soft Layers	49.584 20.726	
76 —			47.450 22.860	
86—		Soft layer	44.402 25.908 42.268 28.042	
96 - 20				
NOTES		by Cornwall Gravel	ASTING:	ELEVATION - TOP OF PVC RISER:
		N	ORTHING:	REVIEWED BY:

MAP DATUM:

PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: TM

DRILLER: Bourgeois Well Drilling

REVIEWED BY:

TEMPLATE: MP - MW only

DATE DRILLED: 31-Aug-16

Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details	
06 —		Fracture	37.087 33.223		
6—	97	Fracture Fracture	35.563 34.747 33.734 36.576		
- 3	9				
86 —					
6 —					
6 — 4	9				
6 —					
6—					
6—					
5	9		10.264		

NORTHING:



PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III $\&\ V$ Properties

CLIENT: Cornwall Gravel

LOGGED BY: TM

DRILLER: Bourgeois Well Drilling

REVIEWED BY:

TEMPLATE: MP - MW only

DATE DRILLED: 31-Aug-16

Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details			
206 —		Fracture					
216—							
226 —	69						
236 —							
246 —							
256 —	79						
266 —							
276—							
286 —	- 89						
<u> </u>	NOTES: Elevations in meters above sea level (m asl) EASTING: ELEVATION - TOP OF PVC RISER:						

NORTHING:



PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: TM

DRILLER: Bourgeois Well Drilling

REVIEWED BY:

TEMPLATE: MP - MW only

DATE DRILLED: 31-Aug-16

Denth	Depui	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details
306 —					
316 —					
326 —	— 10				
336—					
346 —					
356 —	— 11)				
366 —			End of hole	-41.552 111.862	<u> </u>
376 —			Well terminated in bedrock at target depth		
386 —					
396 —	— 12)TES:		n meters above sea level (m asl) EASTIN	IG:	ELEVATION - TOP OF PVC RISER:

NORTHING:

DRILLER: Bourgeois Well Drilling

BH/MW ID: TW11-1

PROJECT No: CP-16-0280 LOGGED BY: TM

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel DATE DRILLED: Oct 3/4, 2016

CLIENT	CLIENT: Cornwall Gravel			DATE DRILLED: Oct 3/4, 2016		
Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details		
-4 -tt m		Ground Sur	rface 73.530 0.000			
6—		Till with boulders				
16 —						
		Craval	68.044 5.486			
26 —		Gravel				
		Silt	65.300 8.230			
9		Silt to silty clay at bottom of interval				
36 —						
46 —						
		Podrock	57.376 16.154	🛛 🖟		
56 —		Bedrock	54.937 18.593	Open hole in bedrock		
66 —	Section 20	Fracture	18.593			
76 —	V-22-2299	Fracture	51.889 21.641			
96 — 26						
	· Elovations in	a motors above sea lovel (m asl)	ASTING:	ELEVATION TOD OF DVC DISED.		
NOTES			ASTING:	ELEVATION - TOP OF PVC RISER:		
	- Provided b	oy Cornwall Gravel N	NORTHING:	REVIEWED BY:		

MAP DATUM:



PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: TM

DRILLER: Bourgeois Well Drilling
DATE DRILLED: Oct 3/4, 2016

REVIEWED BY:

TEMPLATE: MP - MW only

Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details
106 —				
116 —				
126 — 3				
136 —				
146 —				
156 — — 4				
166 —				
176—				
186 —				
196 — NOTES		n meters above sea level (m asl) EASTIN	IG:	ELEVATION - TOP OF PVC RISER:

NORTHING:





PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: TM

DRILLER: Bourgeois Well Drilling
DATE DRILLED: Oct 3/4, 2016

REVIEWED BY:

TEMPLATE: MP - MW only

CLIEN	1: Corriwali Gi	avei	DATE DRILLED: Oct 3/4, 2016				
Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details			
206 —							
216 —							
226 —	69						
236 —							
246—							
256 —	19						
266—							
276—							
286 —	89						
NOTE	NOTES: Elevations in meters above sea level (m asl) EASTING: ELEVATION - TOP OF PVC RISER:						

NORTHING:



PROJECT No: CP-16-0280

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

LOGGED BY: TM

DRILLER: Bourgeois Well Drilling

REVIEWED BY:

TEMPLATE: MP - MW only

DATE DRILLED: Oct 3/4, 2016

4 4 2 0	Deptin	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details
306 —					
316 —					
326 —	10				
336 —					
346 —					
356 —					
366 —	— 11				
376 —					
386 —			End of hole Well terminated in bedrock at target depth	-42.904 116.434	
	— 12	0			
896 — NO	TES:	Elevations in	n meters above sea level (m asl) EASTIN	IG:	ELEVATION - TOP OF PVC RISER:

NORTHING:





PROJECT No: CP-16-0280

- Provided by Cornwall Gravel

SITE: Cornwall Gravel - MacLeod III & V Properties

CLIENT: Cornwall Gravel

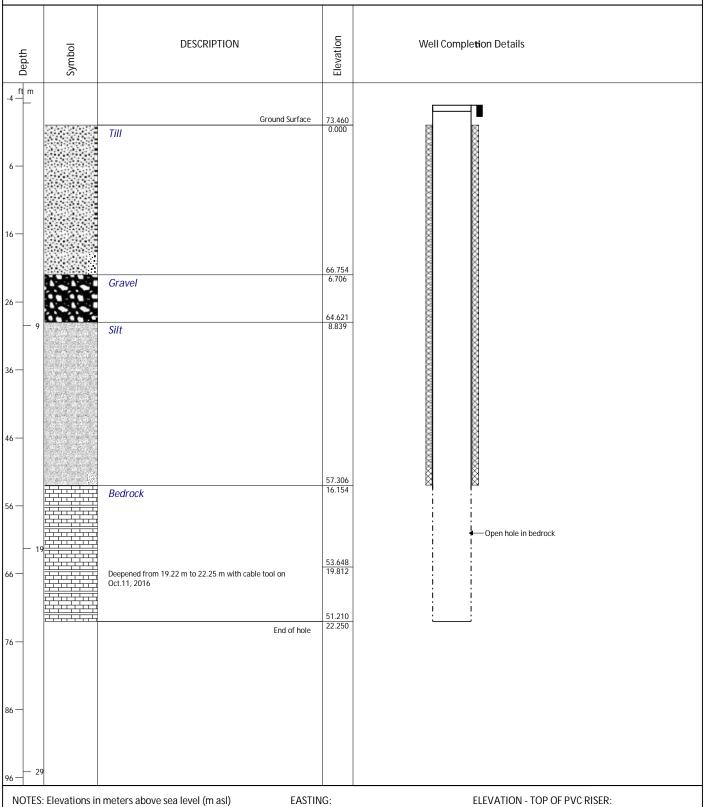
LOGGED BY: TM

DRILLER: Bourgeois Well Drilling

REVIEWED BY:

TEMPLATE: MP - MW only

DATE DRILLED: 31-Aug-16



NORTHING:

PROJECT No: CP-16-0280 LOGGED BY: TM SITE: Cornwall Gravel - Macleod III & V Properties DRILLER: CCC

CLIENT: Cornwall Gravel DATE DRILLED: 19-Oct-16

-	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details
		Ground Surfac No Recovery	73.410 0.000	← —Silica sand
4		Silt and Sand Silt and medium sand with some gravel No Recovery	68.838 4.572 68.228 5.182	◆——Pel Plug 1/4" chip
7 8	9005 9005 9 62 3 2 3 6 8 3 6 5 3 6 9 7 6 7 6 3	Sand Medium sand with gravel and trace silt Coarse sand and gravek No Recovery Gravel Gravel with some fine sand Very coarse gravel and small cobbles Cobbles from granite and limestone from core limestone	67.314 6.096 66.704 6.706 66.247 7.163 65.790 7.620 64.998 8.412 64.571 8.839 64.266	Slough
9		EOH - 9.144 m bgs	9.144	

- Provided by Cornwall Gravel

NORTHING:

REVIEWED BY:

MAP DATUM:

PROJECT No: CP-16-0280 LOGGED BY: TM
SITE: Cornwall Gravel - MacLeod III & V Properties DRILLER: CCC

CLIENT: Cornwall Gravel DATE DRILLED: 18-Oct-16

CLIENT	: Cornwall Gr	avel		DATE DRILLED: 18-Oct-16		
Depth	Symbol	DESCRIPTION	Elevation	Well Comple ti on Details		
-4 ft m		Ground Surface	72.040			
6—		Silt Some sand, trace gravel, brown to gray, moist, soft to stiff Till Trace sand, trace gravel, occassional cobbles brown with red staining, stiff to very stiff	72.040 0.000 70.668 1.372	■— Silica Sand — Hole Plug (3/8 chip)		
16 —		Till-like material Silty fine sand, trace gravel, grey,moist to wet, compact to dense	67.468 4.572	Hole Plug (3/8 chip) Slough		
26 — 9						
36 —		Silt and Sand Dark gray, wet, loose to compact	59.848 12.192 58.324			
46 —	1000 900 900 900 900 900 900 900 900 900	Water flowing Trace gravel Bedrock Highly fractured	55.489 16.551	Pel Plug 1/4" chip → Silica Sand		
56 —	9	Competent bedrock End of hole Well terminated in bedrock at target depth	10.551	<u>id. ∳i</u>]		
66 —						
76 —						
86 —						
96 — 29	9					
NOTES	NOTES: Elevations in meters above sea level (m asl) EASTING: ELEVATION - TOP OF PVC RISER: -Provided by Cornwall Gravel					

-Provided by Cornwall Gravel

NORTHING:

REVIEWED BY:

MAP DATUM:

PROJECT No: CP-16-0280 LOGGED BY: TM

SITE: Cornwall Gravel - MacLeod III & V Properties DRILLER: Bourgeois Well Drilling

CLIENT: Cornwall Gravel DATE DRILLED: 11-Oct-16 Elevation DESCRIPTION Well Completion Details _____ft m 72.720 0.000 Ground Surface Topsoil Sand Medium sand Till 16 26 46 Gravel 57.480 15.240 Bedrock Fractures 56 Open hole in bedrock Final 10' deepend with cable tool 51.384 21.336 End of hole 76 -Well terminated in bedrock at target depth 86

NOTES: Elevations in meters above sea level (m asl)

- Provided by Cornwall Gravel

EASTING:

ELEVATION - TOP OF PVC RISER:

NORTHING:

REVIEWED BY:

MAP DATUM:

APPENDIX B MOECC Well Records





MINISTRY OF THE ENVIRONMENT COPY

The Ontario Water Resources Act WATER WELL RECORD

Z. CHECK 🗵 COR	SPACES PROVIDED RECT BOX WHERE APPLICABLE	2303086 LINE TO A CONTROL TO THE CONTROL THE CONTROL TO THE CONTRO	CON 15 22 21 24
COUNTY OR DISTRICT	TOWNSHIP. BOROUGH. CITY, TOWN. VILLAGE	CON BLOCK, TRACT, SURV	EY ETC LOT 25-27
)	Q 4 1/4	DATE COMPLETED 11.53
	IING R	C ELEVATION PC BASIN CODE	DAV MOCOU YR
1 2 10 12	OG OF OVERBURDEN AND BEDR	S 26 30 31	47
GENERAL COLOUR MOST	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH . FEET
ROALLY // O / O	10/0		FROM TO
BROWN HARDPAN	And BOULDERS	<i>#</i> .	1al 9 35
GREY HANGE	And BoulDERS		35 52
CREY CRAVEL	A GO DOUCDERS		5658
GREY Limestone	=		58 65
		```	
			~
31			
32 WATER RECORD	51 CASING & OPEN HOLE	PECOPO SIZE(5) OF OPENING	55 75 80 31-33 DIAMETER 34-38 LENGTH 39-40
WATER FOUND KIND OF WATER	INSIDE WALL THICKNESS	DEPTH - FEET	
63 PFRESH 3 SULPHUR "	210-11 : Letter 27	13-16	DEPIH TO FOR 41-44 30 OF SCHEEN
1	GALVANIZED CONCRETE	0 58 61 PLUGGIN	G & SEALING RECORD
20:73 : STRESH 3 SULPHUR 24	17-18 - 3 STEEL 19	20 23 DEPTH SET AT - FEET FROM TO	MATERIAL AND TYPE (CEMENT GROUT)
2 SALTY 4 MINERAL 25-25 : FRESH 3 SULPHUR 29	1 DOPEN HOLE	8 65 0 10-11 22-17 (	dinant down
Z   SALTY A   MINERAL 30.33 1   FRESH 3   SULPHUR 34 8	24-25 1 [] STEEL 26 2	27-30 18-21 22-25 25-29 30-33 80 (	
2 SALTY 4 MINERAL	4 ☐ OPEN HOLE		
71 PUMPING TEST METHOD 13 PUMPING HAT	D-14 DURATION OF PUMPING    15-16   17-18   17-18   MIRS	LOCATION	FWELL
	EVELS DURING 1 [] PUMPING 2 [] RECOVERY	IN DIAGRAM BELOW SHOW DISTANCE	
5 19-21 38 FEET 3026-2	130   38   38		
	ET FEET FEET FEET		
FEET FEET FEET FEET FEET FEET FEET FEET		1 1	
SHALLOW DEEP SETTING	TO SEET PUMPING AND GPM	3	
CINIAI SA WATER SUPPLY	S ABANDONED INSUFFICIENT SUPPLY		
STATUS   OBSERVATION WEI			
OF WELL RECHARGE WELL	5 [] COMMERCIAL		WELL
WATER 2 STOCK 1 IRRIGATION	6 MUNICIPAL 7 PUBLIC SUPPLY	1 /mile	->-
USE   INDUSTRIAL   OTHER	COOLING OR AIR CONDITIONING     NOT USED		25
METHOD 2 AOTARY (CONVEN	BORING  TIONAL) 7 □ BIAMOND		= 341 10 V 2/4
OF 3 GROTARY (REVERSE DRILLING + GROTARY (AIR)			01500
S AIR PERCUSSION		DRILLERS REMARKS	01598
	E015 1414	ONTE SOURCE SE CONTRACTOR SE-62	UATE RECEIVE 2 1 1 86 43-41 10
ADDRESS ES BOURG		O DATE OF INSPECTION INSPECTOR  U O O O O O O O O O O O O O O O O O O	
MANE OF DRILLER OR BONDE	ETTE DIZI		
SIGNATORE OF CONTRACTOR	SUBMISSION DATE	OFFICE	CSS.ES
- Togall	7/ DAY NO YR		

Ontario	-Ministry of	Well Tag No.	ag#: A140216	Population 903 On	Well Record
Measurements recorded	the Environment	A1402111	)	Regulation 300 On	Page of
Well Owner's Informa					
Firs Name	Last Name / Organizati	opo 111	E-mail Address	NIA	Well Constructed by Well Owner
Mailing Address (Street Nu	Imber/Name	Municipality	Province		elephone No. (inc. area code)
390 Elou	enth St.W. Bo	x67 Corne	uall On.	KGH5R9	
Well Location		Township	1		oncession ,
Address of Well Location (	Street Number/Name) ROI	Township	nwall	Lot fort lot	S
County/District/Municipalit		City/Town/Villag	7001	Province	
LITM Constitution 7000 F	ooting Northing	Municipal Plan	and Sublot Number	Ontai Other	TIO KUHDIN
VTM Coordinates Zone E	5189634992	7713	and Odbiot Hambon		
	k Materials/Abandonment S	ealing Record (see instruct	ions on the back of this form)		Depth (m/ft)
	ost Common Material	Other Materials		neral Description	From To
Brown c	lay	S:14, Ston		4	0 5.1
Grey cla	4	Silt, Stone	1000	sed .	5.1/24
- J	racel	Stone		<u>ted</u>	12.4 14.8
cres To	mestone		Law	eed	14.8 243
			· · · · · · · · · · · · · · · · · · ·		
	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
_					
Depth Set at (m/ft)	Annular Space Type of Sealant Used	Volume P	laced After test of well yiel	Results of Well Yield	Testing v Down Recovery
From To	(Material and Type)	(m³/ft	2) Clear and sand	i free Time v	Water Level Time Water Level
0 15.54	ciment good	55 m3	Other, specify  If pumping discontin	(min) Static	(mift) (min) (mift)
	۷.	:	in partialing discording	Level .	3.74 21.65
			Pump intake set at	Affiliti)	0.30 1 20.60
	AMERICA VIII VIII N. A. C.		21		7.34 2 19.52
Method of Constr	uction	Well Use	Pumping rate (umin	() (GPM) 3 X	3/9.07
	Diamond Public	_ =	ot used Duration of pumpin	4 (	1.09 4 18.83
	Jetting Domestic Driving Livestock		ewatering hrs +	min 5 (	9.64 5 18.59
☐ Boring ☐	☐ Digging ☐ Irrigation ☐ Industrial	Cooling & Air Conditioning	· II	_ 10 //	4.10 10 16.56
Other, specify Pir S			If flowing give rate (		5.50 15 14.50
<del></del>	uction Record - Casing	Status of		20 1	290 20 13 10
Inside Open Hole OR Diameter (Galvanized, Fil	oreglass, Thickness	ith ( <i>mlft</i> )	11	np depth ((m/ft) 25 /	1/1/25 9 8/
(cm/in) Concrete, Plast	ic, Steel) (cmlin) From	Test Hole	Recommended pur	np rate 30	208930 6 72
15.55 34ee	1 045 t.6	Dewaterin	g Well 3 6	. 10	21/0/19/19
15.55 Open 16	ale 15,50	724.3 ☐ Observatio Moniloring		·      >	21.00 70 7.7
		Alteration (Construct	ion) Disinfected?	50	21.65 = 3.90
		Abandone Insufficient	'	60	21.65 60 3. 76
Outeide	ruction Record - Screen	Abandone th (m/ft) Water Qua	d, Poor	Map of Well Locat  ap below following instruction	
Diameter (cm/in) Materia (Plastic, Galvaniz	Slot No	To ☐ Abandone specify	· II		المحالين المحالين
		Speany			**161^
		Other, spe	cify		4
	/ater Details	Hole Diameter			, m
	of Water: Fresh Monteste	d Depth (m/ft)	Diameter (cmlin)		Bom
23 (m/ft) Gas G	Other, <i>specify</i> Lof Water:FreshUnteste	From To	<u>`′-  </u>	* 1	
(m/ft) Gas: C			1 4	adline RD	
	of Water: Fresh Unteste	15.5424.3	5,55	400m	•
(m/ft) Gas (				۵	
	Other, specify			14	
	ontractor and Well Technici	an Information Well_Contractor's Lic	ence No.	'V3'	
Well C	ontractor and Well Technici	<del></del>	7 10	'V ₃₁ ,	
Well C	ontractor and Well Technici	<del></del>	Comments: Pt	in ^{an}	
Business Name of Well Con Business Address (Street N	ontractor and Well Technici tractor (LOW DILL' & L umber/Name) D'HOUST	Well Contractor's Lic F 4 Municipality	7 10	iv _{st.}	
Business Name of Well Con Business Address (Street Ni 15   Um Ca Province Postal	ontractor and Well Technici tractor UNITED Limber(Name) O'HOUST Code Business E-mail Ad	Well Contractor's Lic Hunicipality dress	Comments: No.	Package Delivered	Ministry Use Only
Business Name of Well Con Business Address (Street Ni 15   Um Ca Province Postal	ontractor and Well Technici tramor LOW DILLING Limber Name) O'HOUS Code Business E-mail Ad	Well Contractor's Lic Hunicipality dress	Well owner's Date information package delivered	NER OF A	udit No.
Business Name of Well Con  Business Address (Street N  Province Postal  Bus. Telephone No. tinc. area of	ontractor and Well Technici tractor UNITED Limber(Name) O'HOUST Code Business E-mail Ad	Well Contractor's Lic F 4 Municipality drass (Last Name, First Name)	Comments: Well owner's Date information package delivered Date	Work Completed	
Business Name of Well Con Business Address (Street N Business (Street	ontractor and Well Technicistractor  Itractor  UN VIII 49  Lumber/Name)  OHOUS  Ode Business E-mail Ad  Sode) Name of Well Technician	Well Contractor's Lic F 4 Municipality drass (Last Name, First Name)	Comments: Well owner's Date information package delivered Pyes No 2 0	NER OF A	udit No.

Ontario	Ministry of the Environment	Well Tag N	Tag#:	A133878	Regulation	903 Ontario V	Vell Record Vater Resources Act
Measurements record	ed in: Wetric 🗌 Imperia		23/4 18				
Address of Well Location	on (Street Number/Name)	Town	nship EMV21420	(1)	Lot (o	Concess	ρn
County/District/Municip	1 1	City/	Town/Village	a 04-		Province Ontario	Postal Code KOC (PO
UTM Coordinates Zone	Easting Northing	0145 Mun	icipal Plan and Sublo	l Number	AAAAAAN TARAA	Other	
	rock Materials/Abandonment  Most Common Material		(see instructions on the Materials		al Description		Depth ( <i>m/ft)</i> From To
Brown 5	3:11		Boulder	Ha	rel		0 2.3
Grey S	: (+	clay,	اسا	Hav	. 1		2.3 12.8
	murl linestore	Stor	<u>ve</u>	pac lucer	ed		14.0 24.3
						Tr.	
		,					
				<u> </u>			:
	Annular Space					ell Yield Testin	
Depth Set at (m/ft) From To	Type of Sealant Us (Material and Type		Volume Placed (m³/ft³)	After test of well yield,  Clear and sand fi  Other, specify	water was: ree	Time Water Le	Recovery  vel Time Water Level (min) (m/ft)
0 14.8	ciment gre	2+	· Um3	If pumping discontinue	d, give reason:	Static Level 4,4	9 9.09
				Pump intake set at (n	₹ <b>7</b> #)	1 5.1	5 1 8.06
				Pumping rate(//min)	5	3 60.6	9 3 8
Method of Cor	☐ Diamond ☐ Public	Well Use  Commercia	= 1	Duration of pumping	4	4 6.9	8 4 6.5%
Rotary (Conventional) Rotary (Reverse) Boring	) ☐ Jetting ☐ Domestic ☐ Driving ☐ Livestock ☐ Digging ☐ Irrigation	☐ Municipal ☐ Test Hole ☐ Cooling & A	☐ Dewatering ☐ Monitoring ☐ Monitoring ☐ Air Conditioning	hrs + r	nin f pumping <i>(m/lt</i> ,	5 7.3	10 5 6.31 10 C VC
Air percussion Other, specify	ndustrial			9,09 If flowing give rate (I/r	nin / GPM)	15	15 5.60
Cor	nstruction Record - Casing	Depth ( <i>m/ft</i> )	Status of Well Water Supply	Recommended_pump	o depth <i>(in/ft)</i>	20 80	9 20 5.38
Diameter (Galvanize	d, Fibreglass, Thickness Plastic, Steel) (cm/in) Fro	то То	Replacement Well Test Hole	20 Recommended pump		25 5 4	$\frac{3}{9} = \frac{25}{5} = \frac{5}{17}$
15.55 St	ce ( .40 to	6 79.8	Recharge Well Dewatering Well Observation and/or	(I/min / OPM)	5	40 7	9 40 U.69
15.35 Oper	attole 14	(0 2 (6)	Monitoring Hole Alteration	Well production (I/mir		50 8,9	50 4 49
			(Construction)  Abandoned, Insufficient Supply	Yes No	Man of M	60 C	9 60 4, 49
Outside M	aterial Slot No.	Depth (m/ft)	☐ Abandoned, Poor Water Quality ☐ Abandoned, other,	Please provide a map			ne back.
(cm/in) (Plastic, Ga	Ivanized, Steel) Survey Fro	om To	specify				701
			Other, specify	CREUU			
Water found at Depth	Water Details  Kind of Water: ☐ Fresh ☑ Unto		e Diameter m/ft) Diameter To (cm/in)			1	
22 (m/ft) ☐Gas Water found at Depth	Other, specify Kind of Water: Fresh Until		14.8 24.8			20 ^C	» ^{м^}
(m/ft) ☐ Gas Water found at Depth	Other, specify Kind of Water: Fresh Unt		24.3 15,53		u	lugue 1	1
w w	Other, specify	nician Informatio	n		B _	100 100	ell
Business Name of Wel	S O O T	a 17. 7	Contractor's Licence No.				
TICI IXIN	ntel Number/Name) Acces	P 1	JOT 10n	Comments:			
	Postal Code Business E-ma	<i>(</i> A)		Information	ackage Delive	Audit N	nistry Use Only
HISURIAN	area code) Name of Well Techni	EK, M.	LLHHUL	package delivered	Vork Complete	1218	z 153302
349	No. Signature of Technician and	70r Contractor Date	1121004	1 0 40 0	1209	28	A
0506É (2007//2) © Que	en's Printer for Ontario, 2007		Ministry's Copy				

On	tario Minis	try of nvironment	Well Ta	g No. Tag#:	A124218	Regulatio	n 903 Ontario		Record
Measurement	ts recorded in: 💢	Metric 🔲 Imperial		····			Pa	ge	of
County/District UTM Coordinate NAD   8	tes Zone Easting S	Norwing Northing	KO.	Township  City/Town/Village  Municipal Plan and Sub  ord (see instructions on the	Iot Number	Lot	Province Ontario Other	Postal	Code
General Color		mon Material	Oth	ner Materials		eral Description	)	Dep From	th ( <i>m/ft</i> )
Brown	clay	1992/1807 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971 1971	S:/4,	Stone	Hara		and the state of t	3.9	6.7
Grey	Vineste	1	Sift,	\$70//	layere			60	25.9
Depth Set at		Annular Space Type of Sealant Use	i i	Volume Placed	After test of well yield,	water was:	Draw Down	R	ecovery
From	TO 7 / 5 N	(Material and Type)	11	(m³/ft³)	☐ Clear and sand f ☐ Other, specify		Time Water Let (min) (m/ft)	(min)	Water Level (m/ft)
	I of Construction	3	Well Us		If pumping discontinue Pump intake set at (r 2 2 Pumping rate (l/min /	n/ft)	1 1.0 2 1.1 3 4 1 2	0 1 0 2 0 3 3 4 ·	[0,58 3,50 8,38 190
Cable Tool Rotary (Cont Rotary (Reve Boring Air percussic	erse) Driving Digging	Livestock Industrial Other, specif	Municip Test Ho Cooling	al Dewatering	Duration of pumping hrs + r Final water level end o	3	5 1 F 10 1 5 15 1 5	0 5 0 10 7 15 3 20	7,50 6,50 6,23
Diameter (( (cm/in) C	Open Hole OR Material Galvanized, Fibreglass, Concrete, Plastic, Steel)	Thickness (cm/in) From	pth ( <i>m/ft</i> )  To	☐ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well	Recommended pump  22  Recommended pump (I/min / GPM)		$\begin{array}{c c} 25 & 0.66 \\ \hline 25 & 0.76 \\ \hline 30 & 0.46 \\ \end{array}$	<u> </u>	6:13 (,07
15.55 C	Steel Pan Hole	6.1	25,9	Dewatering Well Observation and/or Monitoring Hole	Well production (I/min	) / GPM)	40 0 8	3 40 6	.04 .04
				☐ Alteration (Construction) ☐ Abandoned,	Disinfected?  Ves No		60 /05	58 60 K	5.03 (, 03
Outside	Construction R		oth ( <i>m/ft</i> )	Insufficient Supply ☐ Abandoned, Poor Water Quality	Please provide a map		ell Location	e back	4
Diameter (cm/in) (Pl	Material lastic, Galvanized, Steel)	Slot No. From	То	☐ Abandoned, other, specify ☐ Other, specify		1002° -81-0	1		M
Q 2 (m/ft) Water found at (m/ft) Water found at	Water Det t Depth Kind of Water Gas Other, spe t Depth Kind of Water Gas Other, spe t Depth Kind of Water	:	Dept From	ole Diameter  (m/ft) Diameter  To (cm/in)  6 - 7 24.8  25.9 15.55		 			
	······································	r and Well Technic			97,5			. 1 . 5	- <del>[</del>
Business Addre	e of Well Contractor  CON JULY  SS (Street Number/Na  Postal Code		Mun	Contractor's Licence No.	Comments:		Son	jh Bran	
MISHIS	No. (inc. area code) Na Licence No. Signature	me of Well Technician	Contractor Date	Submitted	information package delivered Date W	ork Completed	Audit No.	153	
0506E (2007/12)	© Queen's Printer for Onta	ario, 2 <del>007</del>		DOB以8   Ministry's Copy	No ZO	12000	Call Reco <b>ds</b>	a (.)	<u> </u>

2 /	vironment		g No. (Place Sticker a	nd/or Print Below)	Regulation	~ /	Water Re	Record
Measurements recorded in: Well Owner's Information	letric ∐ Imperial		08714		(	<u> 1325°</u>	age >	_ of <u></u>
First Name ( L	ast Name / Organizatio	SOME	>	E-mail Address			_	Constructed Vell Owner
Mailing Address (Street Number/Nar	ne)	N.	Junicipality	Province	Postal Code	Telephi		c. area code)
Well Location	)   _		wingo		กลงงา	116+11		
Address of Well Location (Street Nur \$56,00 M (C) County/District/Municipality		_	ownship		Lot	Conce	ssion	
County/District/Municipality	• • •		ity/Town/Village  Cornul Iunicipal Plan and Subk			Province Ontario	Posta	al Code
VTM Coordinates Zone Easting  NAD   8   3   1   5   1   5	6234992	000	lunicipal Plan and Subl	ot Number		Other		1
Overburden and Bedrock Materi	al≰/Abandonment Se non Material	ealing Reco	rd) see instructions on the er Materials					pth ( <i>m/ft</i> )
Gerieral Colour Wost Comin	ion Material	Oth	er waterials ,		al Description		From	·31
				Conc Bense			.31	4.57
						Y		
			STEEN STANDARD STANDAR	Zimaliyingi)Milin(dhazanyesaxiyisayesiyin -	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		•	U TURO A NORMA NASARITA W PANAGA PANAGA PANAGA PAN
Depth Set at (m/ft) From To	Annular Space Type of Sealant Used (Material and Type)		Volume Placed	After test of well yield, v	water was:	Draw Dov	vn f	Recovery
FIGHT	(мателагала гуре)		(m³/ft³)	☐ Clear and sand fr☐ Other, specify	ee	Time Water		Water Level (m/ft)
			· · · · · · · · · · · · · · · · · · ·	If pumping discontinued	d, give reason:	Static Level		
				Pump intake set at (m	v/ft)	2	1 2	
				Pumping rate (I/min / 0	2014	3	3	
Method of Construction  Cable Tool  Diamond	Public	Well Use	***************************************		31-141)	4	4	
☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving	☐ Domestic ☐ Livestock	☐ Municipa		Duration of pumpinghrs + m	nin	5	5	
☐ Boring ☐ Digging ☐ Air percussion	☐ Irrigation ☐ Industrial	Cooling	& Air Conditioning	Final water level end of	pumping (m/ft)	10	10	
Other, specify  Construction Re	Other, specify	757 757 807 807 807 123	Status of Well	If flowing give rate (I/m	nin / GPM)	15	15	
Inside Open Hole OR Material Diameter (Galvanized, Fibreglass,	Wall Dept	:h ( <i>m/ft)</i>	Water Supply Replacement Well	Recommended pump	depth (m/ft)	20	20	*
Concrete, Plastic, Steel)	(cm/in) From	То	Test Hole Recharge Well	Recommended pump	rate	30	30	
7.05 phospic	360 0	11.5	Dewatering Well	(I/min / GPM)		40	40	
***************************************			Monitoring Hole	Well production (I/min	/ GPM)	50	50	
			(Construction)  Abandoned,	Disinfected?		60	60	
Construction Re	***************************************	L ( (5)	Insufficient Supply Abandoned, Poor Water Quality	Please provide a map l		ell Location		
Diameter (cm/in) Material (Plastic, Galvanized, Steel)	Slot No. From	h ( <i>m/ft)</i>   To	Abandoned, other,	ricase provide a map i	sciett follotting	mondodono on	are back.	112
4.82 plastic	10 1.5	4.57	lest Hole					3 /
*								18
Water Det Water found at Depth Kind of Water		Depti	ole Diameter h ( <i>m/ft</i> ) Diameter		# 5	560	)	3
(m/ft) Gas Other, spe Water found at Depth Kind of Water		From	To (cm/in) 4.57 4.82			060		
(m/ft) Gas Other, spe	cify		4.5/4.000			560 1-2.4m		<b>E</b>
Water found at Depth Kind of Water  (m/ft) Gas Other, spe					1 9			1
Well Contracto Business Name of Well Contractor	r and Well Technicia		ion I Contractor's Licence No.					
Strata Soil San	pliny	7	1241				¥	*
Business Address (Street Number/Nat 147-2 W. Beaver	- creek	R	ich mondhill	Comments:				
Province Postal Code  UW B//L	Business E-mail Ad	dress	atisoil com		ackage Delivere	d I N	inistry Us	e Only
Bus.Telephone No. (inc. area code) Na	me of Well Technician (	Last Name, F		information	Y   Y   M   M	Audit N		
Well Technician's Licence No. Signature				Yes Date W	ork Completed		JAN 0.9	
0508E (2007/12)	ario 2007	3	0 1 1 1 1 M 2 7	No S O	41414141	Q ↓  Receiv	id 0.3	

Well Tag No. (Place Sticker and/or Print Below) Well Record Ministry of the Environment Regulation 903 Ontario Water Resources Act A113484 Metric ☐ Imperial Page 💫 Measurements recorded in: Well Owner's Information Last Name / Organization First Name E-mail Address ☐ Well Constructed by Well Owner Postal Code Province Telephone No. (inc. area code) 10 DAG MAWHZII TUYUYN Well Location Address of Well Location (Street Number/Name) Concession Township 5560 Milanne County/District/Municipality City/Town/Village Province Postal Code Cormell Ontario NAD | 8 | 3 | 1 | 8 | 5 | 1 | 8 | 6 | 1 | 3 | 4 | 9 | 9 | 0 | 9 | Municipal Plan and Sublot Number Other Overburden and Bedrock Materials Abandonment Sealing Record (see instructions on the back of this form) Depth (m/ft, General Colour Most Common Material Other Materials From Torsail .31 0 3.80 Annular Space Results of Well Yield Testing Type of Sealant Used (Material and Type) Depth Set at (m/ft) Volume Placed After test of well yield, water was: Draw Down Recovery From Clear and sand free  $(m^3/ft^3)$ Time Water Level WaterLe (min) Other, specify (m/ft) (m/ft) (min) Static If pumping discontinued, give reason: Leve 1 1 Pump intake set at (m/ft) 2 2 3 3 Pumping rate (I/min / GPM) Method of Construction Well Use 4 4 ☐ Diamond Cable Tool Public Commercial ☐ Not used Duration of pumping Rotary (Conventional) ☐ Jetting □ Domestic ☐ Municipal Dewatering 5 5 hrs + ____ min Monitoring Rotary (Reverse) Driving Livestock est Hole Irrigation Boring Digging Cooling & Air Conditioning Final water level end of pumping (m/ft) 10 10 ☐ Industrial Air percussion Other, specify Other, specifi 15 15 If flowing give rate (I/min / GPM) Construction Record - Casing Status of Well 20 20 Depth (m/ft) ☐ Water Supply Inside Open Hole OR Material Wall Recommended pump depth (m/ft) Thicknes (c)n/in) Diamete Replacement Well 25 25 From To (Eigvin) Test Hole Recommended pump rate (I/min / GPM) 30 30 1.03 1.3 Recharge Well 0 Dewatering Well 40 40 Observation and/or Well production (I/min / GPM) Monitoring Hole 50 50 ☐ Alteration Disinfected? (Construction) 60 60 Yes No Abandoned, Insufficient Supply Construction Record - Screen Map of Well Location Abandoned, Poor Water Quality Outside Diameter (cr)vin) Depth (m/ft) Please provide a map below following instructions on the back. Material (Plastic, Galvanized, Steel) Slot No Abandoned, other, From То 10 2.89 Other, specify Water Details Hole Diameter Depth (m/ft) Water found at Depth Kind of Water: Fresh Untested Diameter From (cm/in) (m/ft) Gas Other, specify 55*60* 2.89 O 4.82 Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify Well Contractor and Well Technician Information Business Name of Well Contracto Struta Soil Sam ss Address (Street Number/Name -2 W. Beaver Well owner's Ministry Use Only Date Package Delivered information package delivered Well Technician (Last Name, First Name)
Beatly B-ian Audit No. z 134433 Y Y Y Y M M D D Date Work Completed JAN 0 9 2012 Yes Contractor Date Submitted 2011/1/1/1/2 ☐ No KON HAMA

Well Tag No. (Place Sticker and/or Print Below) Ministry of Well Record the Environment Regulation 903 Ontario Water Resources Act A107806 9325 Page_1 Measurements recorded in: Metric Imperial Well Owner's Information Last Name / Organization E-mail Address ☐ Well Constructed by Well Owner Mailing Address (Street Number/Name) Municipality Postal Code Telephone No. (inc. area code Diesel CHOM Well Location Address of Well Location (Street Nymber/Name) Township Concession 5560 M. Cornel County/District/Municipality City/Town/Village Province Postal Code Conwell Ontario UTM Coordinates | Zone | Easting Northing lan and Sublot Number Other NAD | 8 | 3 | 1 | 8 | 6 | 5 | 4 | 9 | 9 | 0 | 1 | 6 |

Overburden and Bedrock Materials Abandonment Sealing Record (see instructions on the back of this form) Depth (m)/ft) m | To Most Common Material Other Materials General Description Besal. 031 4.42 TOPSOI Annular Space Results of Well Yield Testing Depth Set at (m/ft) Type of Sealant Used Volume Placed After test of well yield, water was: Draw Down Recovery Time From (Material and Type)  $(m^3/fl^3)$ Clear and sand free Water Level Time | Water Level Other, specify (min) (m/ft) (min)  $(m/\hbar)$ Statio If pumping discontinued, give reason: Level 1 1 Pump intake set at (m/ft) 2 3 3 Pumping rate (I/min / GPM) Method of Construction Well Use Cable Tool Diamond Public Commercial ☐ Not used 4 4 Duration of pumping ☐ Jetting Rotary (Conventional) ☐ Domestic ☐ Municipal Dewatering 5 Rotary (Reverse) hrs + 5 ☐ Driving min Livestock Test Hole Monitoring Boring
Air percussion Final water level end of pumping (m/ft) □ Digging Irrigation Cooling & Air Conditioning 10 10 Industrial Other, specify Other, specify 15 15 If flowing give rate (I/min / GPM) Construction Record - Casing Status of Well 20 20 Inside Open Hole OR Material Wall Depth (m/ft) Recommended pump depth (m/ft) (Galvanized, Fibreglass, Concrete, Plastic, Steel) Thickne Replacement Well 25 (cm/in) From То 25 (granga) Test Hole Recommended pump rate Recharge Well 30 403 1.37 30 -368 (I/min / GPM) Dewatering Well 40 40 Observation and/or Well production (I/min / GPM) Monitoring Hole 50 50 ☐ Alteration Disinfected? (Construction) Yes No 60 60 Abandoned, Insufficient Supply Construction Record - Screen Map of Well Location Abandoned, Poor Outside Depth (m/ft) Water Quality Please provide a map below following instructions on the back, Material Diameter (ch)(in) Slot No X Abandoned, other, From Τo specify / Le 10 4.82 1-37 Other, specify Water Details **Hole Diameter** Water found at Depth Kind of Water: ☐ Fresh ☐ Untested Depth (m/ft) Diameter From (m/ft) Gas Other, specify  $\odot$ 4.81 Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify Well Contractor and Well Technician Information Business Name of Well Contractor Strata Soil 7 2 Municipality Richmonth. // Comments: W. Beaver creek Business E-mail Address 44BILL Wrecord Strak Soil com Well owner's Date Package Delivered Ministry Use Only Name of Well Technician (Last Name, First Name)
Beath Brian information Audit No. z 134434 package delivered Y Y Y W M D D Date Work Completed Yes echnician and/or Contractor Date Submitted

2011/11/11/20

0506E (2007/12)

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☐ No

≈ve**JAN** 0 9 2012

Ontario Well Tag N (Diana Sticker and/or Print Below) Well Record Ministry of the Environment A106105 Regulation 903 Ontario Water Resources Act Metric Page Measurements recorded in: Imperial Well Owner's Information Cornwall Gravel Company Ltd Mailing Address (Street Number/Name)

P.O. Box 67 - 390 Eleventh St. W. Company

Well a cation E-mail Address □ Well Constructed by Well Owner Telephone No. (inc. area code) Province CORNWALL K6 H5R961319326571 OW Address of Well Location (Street Number/Name) Concession Clengarra Province Postal Code Word L K6H5R9 Ontario Other 85201204991073 Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form) Depth (m/ft) From To General Description Most Common Material Other Materials Hard 205 SIH 0 Brown lau 2.5 clavi crea 4.8 limestone Annular Space Results of Well Yield Testing Type of Sealant Used (Material and Type) After test of well yield, water was: Draw Down Recovery Depth Set at (m/ft) Volume Placed Time Water Level  $(m^3/\hbar^2)$ Clear and sand free Time Water Level Other, specify (min) (m/ft) (min) (m/ft) 4 Baa 6 Static If pumping discontinued, give reason: Level 1 1 Pump intake set at (m/ft) 2 2 3 3 Pumping rate (I/min / GPM) Well Use Method of Construction 4 4 ☐ Not used ☐ Dewatering Cable Tool Diamond Public Commercial Duration of pumping Manicipal
Test Hole Rotary (Conventional) Jetting Domestic 5 5 hrs + min Livestock Rotary (Reverse) Driving Monitoring Final water level end of pumping (m/lt) Boring Digging Irrigation Cooling & Air Conditioning 10 10 Air percussion Air Rotaru Industrial Other, specify 15 15 If flowing give rate (I/min / GPM) Construction Record - Casing Status of Well 20 20 Depth (m/ft) Open Hole OR Material Wall Recommended pump depth (m/ft) (Galvanized, Fibreglass, Concrete, Plastic, Steel) Thickne Replacement Well 25 25 То (cm/in) Test Hole Recommended pump rate (I/min / GPM) Recharge Well 30 30 Steel t. 6 .48 6 15.55 Dewatering Well
Observation and/or 40 40 1201 Open Hole Well production (I/min / GPM) Monitoring Hole Alteration (Construction) 50 50 Disinfected? Yes No 60 Abandoned, Insufficient Supply Map of Well Location Construction Record - Screen Le 1 NA Abandoned, Poor Please provide a map below following instructions on the back. Outside Depth (m/ft) Water Quality Material (Plastic, Galvanized, Steel) Diamete (cm/in) Abandoned, other, From specify Other, specify Water Details Hole Diameter you Depth (m/ft) Water found at Depth Kind of Water: Fresh Untested Diamete (cm/in) Town(m/ft) ☐ Gas ☐ Other, specify

Water found at Depth Kind of Water: ☐ Fresh ☐ Untested 6 21.23 (m/ft) Gas Other, specify 12.1 6 Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify Well Contractor and Well Technician Information South Branch 74117 Comments: NIA Well owner information Ministry Use Only Date Package Delivered ne of Well Technician (Last Name, First Name) YYYYMMDD package delivered z 131557 875091 GENIER IER MICHAEL
an and/or Contractor Date Submitted Date Work Completed Yes JUL 1 2 2011 WNO 20110610 20110611 Ministry's Copy

Measurements recorded in:

Ministry of the Environment

Well Tag No. (Place Sticker and/or Print Below) A107806 Metric Imperial

A107806

Well Record

egulation 903 Ontario Water Resources Act
Page 2 of 3 8502

Address of Well L	McCornell A	e N.	Т	ownship		Lot	Cor	ncession		
County/District/Municipality City/Town/Village				Province				Postal	Code	
UTM Coordinates	Zone , Easting	Northing	N.	Cof Awall  Municipal Plan and Subl	ot Number		Ontari	0		
NAD 8 3		4992	017							
Overburden an General Colour	d Bedrock Materials/Aba			ord (see instructions on the er Materials		eneral Description				th ( <i>m/ft</i> )
BRN	Toosail			or materials		onordi Boompdon			From	3/
BAN	50 d		- Vanes		5087				31	2.13
BRN	clay		tones		soft			2	13	4.57
	1									
Depth Set at (m	n/ft) Type o	ular Space Sealant Used		Volume Placed	After test of well y	Results of We ield, water was:	Draw	-	R	ecovery
4		el and Type)	X	(m³/ft³)	Clear and sa		Time VVi (min)	ater Level (m/ft)	Time (min)	Water Level (m/ft)
0 .3	22 Holepha	flushmo	TAMU!			tinued, give reason:	Static Level			
17 1.0	- (11)	1					1		1	
1.224,5	1 1,11 er 34	na			Pump intake set	at (m/ft)	2		2	
					Pumping rate (l/n	nin / GPM)	3		3	16.75
Cable Tool	of Construction Diamond	Public	Well Us				4		4	
Rotary (Conver		Domestic Livestock	Municipa Test Ho		Duration of pump hrs +	oing min	5		5	
Boring	, Digging ,	Irrigation		& Air Conditioning	Final water level e	end of pumping (m/fi)	10		10	
Air percussion Other, specify	lived rush	Industrial Other, specify	/		If flowing give rat	e (l/min / GPM)	15		15	
India 0	Construction Record		ntle (ma/0))	Status of Well		1 11 4 400	20		20	
Diameter (Gal	en Hole OR Material Wa Wanized, Fibreglass, horete, Plastic, Steel) (cm/l	ess	pth (m/ft)	Water Supply Seplacement Well	Recommended p	oump depth (m/ft)	25		25	
4,03	PVC :30	-	1,52	Test Hole Recharge Well	Recommended p	oump rate	30		30	
			7	Dewatering Well Observation and/or	Well production	(/min / GDM)	40		40	
				Monitoring Hole Alteration		umin / Grivi)	50.		50	
				(Construction) Abandoned	Disinfected? Q		60		60	
REPRESE	Construction Record -	Screen		Insufficient Supply Abandoned, Poor		Map of Wo	ell Locati	on		
Outside Diameter (Plas	Material Slot I	No.	pth (m/ft)	Water Quality Abandoned, other,	Please provide a	map below following	instructions	on the b	ack	
(CITVIN)	PIC 10	1,52	4,57	specify	3	M.			7	M
7,00	700	1,,,	100	Other, specify	-	ud ²		_	N	10
	Water Details	100000000000000000000000000000000000000	H	Iole Diameter	A V	Lot				10
Water found at D	Depth Kind of Water:	esh Untest	The second second	th (m/ft) Diameter	PARKIN	9			(	N
The second secon	Gas Other, specify Depth Kind of Water: Fro	esh Unteste	- 1	4.57 8.25		ä.				N
(m/ft)	Gas Other, specify								-	6
	Depth Kind of Water: From Gas Other, specify	esh Untest	ed		A.	5560			1	1
	Well Contractor and	Well Technic								TA
Strata	- : + 0		VVe	ell Contractor's Licence No.	5 m	1.80%	-		_	Je
Business Address	s (Street Number/Name)	ling	_ , (5)	inicipality	Comments:	180%	,a			1
Province	Nest Beaver	Creek	RdK	ichmond Hill						
Ontario	5 L41B1166 W	record	5051	ratasoil con	Well owner's Da	ate Package Delivere		Minist	ry Use	Only
Bus. Telephone No	o, (inc. area code) Name of V	Vell Technician	(Last Name,	First Name)	package y	YYY MM	D D Au	idit No.	131	209
Well Technician's Li	icence No. Signature of Tech	hician and/or	Contractor Da	te Submitted	Ves Di	ate Work Completed		JUN	022	011
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Ministry of the Environment

Measurements recorded in: Metric Imperial A13484

A113484

Well Tag No. (Place Sticker and/or Print Below)

Well Record

Regulation 903 On	tario Water	Resou	rces Ac
802	Page 1	of	3

Address of Well L	ocation (Street Nun	nber/Name)	Avel	0,	Township		Lot		Concessio	n .	
County/District/Mi			- Near		City/Town/Village			Provin		Postal	Code
UTM Coordinates	Zone , Easting	, No	orthing		Corawall Municipal Plan and Suble	ot Number		Onta	ario		
NAD   8   3	18518	1	1 1	113							
Overburden and General Colour	Bedrock Materia Most Comm				ord (see instructions on the her Materials		ral Description	HH	Elbini I		th ( <i>m/ft</i> )
GENERAL COLOUR	Gravel	ion iviatorial		- 01	ner materials	loose	rai Description			From	To
BRN	1,		51	14		5000				31	152
GRY	clay		1	and		dence			1	,52	3.66
	J'avel		-			- 1,2			/		
		Annular	and the second second				Results of We	-	the latest territories and the latest territorie	_	
Depth Set at (m		Type of Sea (Material and	d Type)	./	Volume Placed (m³/ft³)	After test of well yield,  Clear and sand f		-	aw Down Water Levi		Water Level
0 .7	si concr	de/f	ushmo	Turk		Other, specify		(min) Static	(m/ft)	(min)	(m/ft)
.31 1.2	12 Holep					If pumping discontinue	ed, give reason:	Level			
122 31	66 £1/2	Sand				Pump intake set at (r	92/ <del>P</del> 1	1		1	
						rump intake set at (i	ivity	2		2	
Method o	f Construction			Well U	se	Pumping rate (Vmin /	GPM)	3		3	
Cable Tool	Diamond		blic mestic	Comm		Duration of pumping		4		4	
Rotary (Conven		Liv	estock	Merhici Test H	ole Monitoring		min	5		5	
Boring Air percussion	Digging	Irri	gation ustrial	Cooling	g & Air Conditioning	Final water level end of	of pumping (m/lt)	10		10	
Other, specify	lineal Push		ner, specify_			If flowing give rate (I/i	min / GPM)	15		15	
Inside Ope	Construction R	ecord - Cas	-	(m/ft)	Status of Well  Water Supply	Recommended pump	n denth (m/ff)	20		20	
Diameter (Gal	vanized, Fibreglass, crete, Plastic, Steel)	Thickness (cm/in)	From	То	Replacement Well	Troomandida pana	p dopar (mmy	25		25	
4,03 PV	C	,768	0	1,57	✓ Test Hole  ☐ Recharge Well	Recommended pum (I/min / GPM)	p rate	30		30	
				1,	Dewatering Well Observation and/or	Well production (l/mir	n/GPM)	40		40	
					Monitoring Hole  Alteration		77 GF 181)	50		50	
					(Construction)  Abandoned	Disinfected?  Yes No		60		60	
4	Construction R	ecord - Scre	en		Insufficient Supply Abandoned, Poor	REPORTED BY	Map of We	ell Loc	ation		
Outside Diameter (Diameter	Material	Slot No.	Depth	(m/ft)	Water Quality Abandoned, other,	Please provide a map	below following	instruct	ions on the	back.	h
(cm/in)	ic, Galvanized, Steel)		From	To	specify					4	1
4.82 PV	2	10	1,52	3.66	Other, specify					D	-100
										-	16
Water found at D	epth Kind of Wate	and the second name of the second	Untested	_	Hole Diameter pth (m/ft) Diameter	D King			1	1	0
(m/ft)	Gas Other, spe	ecify		From	3.66 8.25	Porking Lot			1		13
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	epth Kind of Wate		Untested							(	- 1
(m/ft)	Gas Other, spe		Taskalala	- Inform	ation						A
Business Name of	Well Contractor  f Well Contractor	or and well	тесплісіа		Vell Contractor's Licence No.	1 Sm	200,	24			V
Strata	Soil S (Street Number/Na	ampli	ng	N.	1 8 4 1	Comments:	01001				
1117 0	and the second second		Creek		Richmond Hill						
Province	Postal Code	Busines	s E-mail Add	iress			Package Delivere	nd ]	Billiot	stry Use	Only
	. (inc. area code) Na	ame of Well	CO Fd S	Last Name	atasoi / . Com	NIIIOTT BAUGIT	Y Y M M		Audit No.	N. C.	
		BeaH		riar		delivered	Nork Completed	O D	Z		210
3 6 1	cence No. Signature	M Connicional	ang/or Co		ate Submitted	170	1104	69	Received	1022	.011
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Well Use

Commercial

Municipal .

Test Hole

Cooling & Air Conditioning

( 4 / 4 Municipality

We Tion

20080924

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Well owner information

package delivered

₩No.

Date Package Delivered

Date Work Completed

2008 0924

Results of Well Yield Testing Recovery Water Level Time Water Level (m/ft) (min) Other, specify 410 If pumping discontinued, give reason: 11.32 Level 1 1 Pump intake set at (m/ft) 2 60 Pumping rate (Vmin / GPM) 20 4 6.90 Not used Duration of pumping Dewatering 1 hrs + 50 min 5 7.26 ☐ Monitoring Final water level end of pumping (m/ft) 10 8.80 10 17.32 15 If flowing give rate (I/min-/ GPM) 0.26 20 10-39 Recommended pump depth (m/ft) 25 25 60 10.40 Recommended pump rate (Vmin / GPM) 30 30 10.60 20 10.81 40 Well production (I/min / GPM) 50 ∠Yes No 60 Map of Well Location Please provide a map below following instructions on the back, 485 JISA WER - 60m -DeldneyRD

Ministry Use Only

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90494

Audit No. Z

Postal Code

KOE 150

Depth (m/ft)

4.3

12.5

14.3

23.7

Well Contractor and Well Technician Information

Ontario COR3 CO
Bus. Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name)
6 1 3 9 8 75 2 9 ( Mic. Loce Center
Well Technician's Licence No. Signature of Technician and/or Contractor Date Submitted

of Well Technician and/or Contractor Date Submitted

Business Address (Street Number/Name)

1182 900 Eas 1 Province Postal Code Business E-mail Address

Public
Domestic

Livestock

☐ Irrigation

Industrial

Other, specify

0

Cable Tool

Boring

Conventional)

Rotary (Reverse)

Air percussion

Other, specify

Method of Construction

Business Name of Well Contractor

Diamond

Jetting

Driving

Digging

# Ontario Ministry of the Environment

Well Tag No. (Place Sticker and/or Print Below)

A 057436 AO 57936 Well Record

Page____ of __

Regulation 903 Ontario Water Resources Act

Well Owner	r's Info	ormation												
First Name	40 . /	Las	Name		. 01/-	J E-ma	il Addres	SILLA	-				/ell Cor by Well	structed Owner
Mailing Addres	m M	et Number/Name, R	JNA (R)	relion	Municipality	7		Provi	ince ,	Postal Code		Telephone N	-	
Opport	56	7 390	Fle	venthe	it west C	ORM	wall		n	F1645	196	61119	321	5571
Part A Cons	struction	on and/or Major												,,
Address of We	ell Locat	ion (Street Number/	Name,	RR)	l Towns	out h	Sot	Muse	17	Lot 4		Concession #		
County/Distric	d //	ne Son	7-11	Organ	_	own/Village		o revor	7	7	Provin		Postal	Code
5-	LAF	Romant			0,.	00	Rn	ma	U		Onta	ario	17/6/	451 9
UTM Coordina	ates Zo	one Easting	No	rthing	GPS Un	it Make	Model	//	Mode of 0	Operation:	Undiffe	rentiated	ANVE	raged
NAD 8		852050	64		06 CCT1	ハ	Mag	ellan	Differe	ntiated, specify				
General Colo		drock Materials (s			back of this form ther Materials	n)			Canaral D	locariotion	<u> </u>		Depth	(Metres)
General Colo	ur	Most Common Mate	mai	•	iner materials			General Description					From	To
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														No. of Contrast of
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From	To			nd Type)		(Cubic N		water wa			Time	Water Leve	Time	Water Level
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		00.	_	200			8	stat		and also reason	Level		Level	
								ir pumpi	ng discontini	ued, give reason	1		1	
						-		Pumpin	g test meth	od	2		2	
											3	477 7	3	
_		onstruction			Water Use			Pump ir	ntake set at	(Metres)	4		4	and the second
Cable Tool Rotary (Cor		Diamond  al) Jetting	Pu		Commercial Mugicipal		ot used ewatering	Pumpin	g rate (Litre	s/min)				
☐ Rotary (Rev	verse)	Driving			Pest Hole		onitoring			1 -	5	70	5	
Rotary (Air) Air percuss		☐ Digging ☐ Boring		igation ( dustrial	Cooling & Air	r Conditionir	ng		n of pumpin	9/.	10	1/	10	
Other, spec				her, specify				[[	hrs +	of pumping	15		15	
				of Well				(Metres)			20		20	
☐ Water Supp		☐ Dewatering V ☐ Abandoned, I			Observation a				mendedpu	71	25	-	25	10/11
est Hole		Abandoned, f	Poor Wa	iter Quality	Other, specif	,		Sha	mended pur	Deep				
Recharge V	Well	Abandoned,						Kecom	Metre		30		30	
Please provide	e a man	below showing:	ocation	n of Well				Recom (Litres/r	mended pur		40	1.00	40	
- all property b	oundarie	es, and measurement ne North direction	s sufficie	ent to locate the	e well in relation	to fixed poi	ints,				50	F- 1	50	
- detailed draw	wings car	n be provided as attac			legal size (8.5"	by 14")		(Litres/r	ng give rate		60		60	
- vidigital pictu	ires of ins	side of well can also b	e provid	led		NT				101.1	D-4			
					. '	, , ,		Water	found at D		of Wat			
				1				18				Salty S	ulphur	Mineral:
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_				Į				Water	Metres			Salty []5	ulphur	Mineral
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									enized	Galvanized	D	iameter of the	Hole (C	entimetres)
								Ceffee		Steel	.	lepth of the Ho	le (Metr	(28
Date Well Co	ompleted	Was the well own	er's infor	mation Da	te the Well Reco	ord and Pac	kage	Fibre		Fibreglass Plastic		12:19	2	
(yyyy/mm/dgl)	/	package delivered?	)		livered to Well C			-	crete	Concrete	V	Vall Thickness	(Metres	)
2008/0		Well Contractor a			n Information			No	Casing a	nd Screen Use	d	nside Diamete	of the C	asing (Metres
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			ber, RF	₹)	Municipality	46		Y	es No			/. (	)(	+ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Province	900	Postal Code	Busines	ss E-mail Add	ress	100/	1	Audit N	lo		ry Use Well	Only Contractor No	).	
On bo	0	KIOH3CIO		/	JA				z 79	820				
Bus.Telephon	e No. (in	c. area code) Name o	f Well T	echnician (La	st Name, First			Date R	eceived (yyy)		Date	of Inspection	yyyy/mn	n/dd)
6 1 3 9	85	ce No. Signature	ic	rael	Genir	ubmitted (y)	Androm lot-	Remark	MAY 23	2008				
3 4	9	3 44		as	-	2028/	55/15	100000						
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						,	4.0	-						

### Ontario Ministry of the Environment A 057435 Well Owner's Information Last Name Chave Complete e, RR) Mulicipality CORnwall CO Part A Construction and/or Major Alteration of a Well Location (Street Number/Name, RR)

Northing

Annular Space/Abandonment Sealing Record

Type of Sealant Used

☐ Public☐ Domestic

Livestock

Irrigation

Industrial

Location of Well

all property boundaries, and measurements sufficient to locate the well in relation to fixed points,
 an arrow indicating the North direction

Other, specify Status of Well

(Material and Type)

185205274981902

Overburden and Bedrock Materials (see instructions on the back of this form

Most Common Material

General Colour

Depth Set at (Listres)
From To

Cable Tool

Rotary (Air)

Air percussion

Other, specify

Water Supply

Recharge Well

Test Hole

Remacement Well

2008/05/15

Please provide a map below showing:

Rotary (Convention Retary (Reverse)

Method of Construction

☐ Diamond

Jetting

Driving

Digging

Boring

Dewatering Well

Abandoned, Insufficient Supply

Abandoned, Poor Water Quality

- detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
 - vidigital pictures of inside of well can also be provided

Was the well owner's information Was the well package delivered? Yes

Well Contractor and Well Technician Information

Abandoned, other, specify

Well Tag	No.	(Place	Sticker	and/or	Print	Below)

Volume Placed (Cubic Metres)

☐ Not used

Dewatering

■ Monitoring

Water Use

Commercial
Municipal

Test Hole

Cooling & Air Conditioning

☐ Alteration (Construction)

Date the Well Record and Package Delivered to Well Owner (yyyy/mm/dd)

Other, specify

Observation and/or Monitoring Hole

Check b

water wa

Can state If pumpir

Pumping

Pump in

Pumping

Duration

(Metres)

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Date Re

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lelow)	Regulation	Well Record Regulation 903 Ontario Water Resources Act Page of						
4					b	y Well	nstructed Owner	
ng	Postal Code	8 9					area code)	
ment	Lot		1	Concessi	on			
P	7	Prov					Code	
Mode of O	peration:		-	rio rentiated	ŧ		#15   P   9 eraged	
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leria	/		-		1	-62	19029	
			-					
			-					
1 1 1 1		4 .						
	Results of W		_		g			
S:	t of well yield,	Tin	-	aw Down Water Le	vel	Time	Water Level	
r and sand	free to sand-free	(Mi	n)	(Metres		(Min) Static	(Metres)	
	ed, give reason:	Lev	el			Level		
3 GOOGHUIO	Lo, giro rodoott.	1				1		
test metho	d	2				2		
ake set at (	(Metres)	3	}			3		
rate (I II	(min)	4				4		
rate (Litres)	anin)	5	)			5		
of pumping	mf -	1	0	10		10		
er level end	pumping	1	5			15		
		/ 2	0			20		
llow []	Deep Deep	2	5	/	1	25		
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Metres nended pur		4	0			40		
in)		-5	0			50		
g give rate		6	0			60		
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Metres	Gas F	resh		Salty [	S	ulphur	Minerals	
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c rete	Plastic Concrete		W	all Thickne	ess /	Metres	)	
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s No	NAI-1-1	ny Ha		701	_		<u> </u>	
7 70	Ministr O 1 O			Contractor	No.			
	819	Post		d least to	VP (	nan-t	n/ddl	
MAY 23		Dat	90	f Inspection	nı (y	yyymr	iruu)	
MI ZJ								

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♥ Ontario	Ministry of the Environment	Well Tag Number / Diane	sticker and print number below)	Regulation 903 Ontar	Well Record to Water Resources Act
<ul> <li>All Sections must be of</li> <li>Questions regarding of</li> <li>All metre measureme</li> <li>Please print clearly in b</li> </ul>	e of Ontario only. The ompleted in full to avoing this applicants shall be reportedue or black ink only.	oid delays in processing tion can be directed to d to 1/10 th of a metre.	g. Further instructions a the Water Well Manag	Please retain for future refer nd explanations are available of ement Coordinator at 416-23 Ministry Use Only	on the beat of this farm
Well Owner's Informatio	n and Location of				
8 3	ne Rd Cone Easting 8 5 20296	E 4993295	South Stor City/Town/VIIIage Unit Make/Mody Mockellan	Site/Compartments de of Operation: Undifferentiate UM Differentiated	ted 👉 Averaged
Log of Overburden and	Bedrock Materials	(see instructions)		- Description	Depth Metres
General Colour Most commo	on material	Other Materials		eral Description	From To
Drown Lill				Hard	3,40 10.36
June 11 me	5424			12 and	1031 2370
The state of the s	3 - 420			The state of the s	1 20 0 1/1
Hole Diameter	7	Construction Reco		Test of We	all Viold
Depth Metres Diameter	ir Inolda	Wall Wall	Depth Metres		v Down Recovery
From To Centimetro	diam Mat	erial thickness			Vater Level Time Water Level Metres min Metres
0 10362123	centimetres	centimetres	From To	Pump intake set at - Static	
1036 2377 1555°	11	Casing		(metres) 2 () Level 3	390 14.05
	□ Plastic [		1060 1036	(litres/min) 18	
Water Record	Galvaniz	ted 0. 10	1060 1U26	Duration of pumping 2	2
Water found Kind of Water		Fibreglass			3
m Fresh Sulphu		Concrete ced		of pumping  / unterres  Recommended pump	
Other:	Steel	]Fibreglass		Recommended pump 4 stype.	5.85 4
☐ Gas ☐ Salty ☐ Minera	als Plastic	Concrete			0.00 5 12.90
Other:	Galvania	Screen			8 00 10 1) 05
☐ Gas ☐ Salty ☐ Minera	ols Outside	Fibreglass Slot No.		rate. (litres/min) 15	7.30 15 11 90
Other:	diam Plastic	Concrete		If flowing give rate - 20 /	0.16 20 11 50 10.8 2 25 10 75
After test of well yield, water was  Clear and sediment free	∬ Galvani:	zed ************************************		If pumping discontin- 30	1/56 30 10.25
Other, specify		No Casing or Scre	ěn .	ued, give reason.	12 23 40 9 99
Chlorinated Yes No	Open ho	bie	1036 2377	50	14 25 80 9 40
Plunging and	Sealing Record	Annular space  Ab	andonment	Location of Well	
Depth set at - Metres Material and		rement slumy) etc Volum	e Placed In diagram be	low show distances of well from road	
From To	I who	5	Indicate north	тоу аггоw. 	noch
	man / m			Ť	
				alling Rd Du	use !
<b>1</b>		40		rd/ine Pd, Du	
Cable Tool	Method of Constructory (air)		Digging	Diner	$\varrho$
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	imercial icipal	Not used Cooling & air conditioning	Audit No.	A O A Date Well	Completed
	Final Status of W			10201	06 07 06
	e well ed, insufficient supply	Unfinished Abando Dewatering	ned, (Otheris   Was the well package deliv	OTTION O MINORITATION	ered YYYY MM DD
☐ Test Hole ☐ Abandon	ed, poor quality ontractor/Technician	Replacement well		Ministry Use Only	*
Name of Well Contractor	ontractor/ recnnician	Well Contractor's L	icence No. Data Source	*12***	
Business Address Introductions	mber city	1414	Date Receive	d YYYY AMM DD Date of Ins	pection YYYY MM DD
Business Address (street hame, no	2000		AUG	2 3 2005	
Name of Well Technician (last name	ne, first name)	Well Technician's L	icence No. Remarks	Well Reco	rd Number
Signature of Technician/Contract	3 /	Date Submitted	MM DD		
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Soor (saids)	Contidutor 5 C	iniiinii ji oopy			

♥ Ontario	Ministry of the Environment	Well Tag Number (Plan	38732	r below)	Regulation 903 Onta	Well R	
Instructions for Comple	tina Form	1 4/13	873.	2		page	of
For use in the Province	e of Ontario only.	Γhis document is a perm	anent lega	l document. P	⊐ lease retain for future refe	erence.	
<ul> <li>All Sections must be a</li> <li>Questions regarding or</li> </ul>	completed in full to a completing this applic	void delays in processin cation can be directed to	g. Further i the Water	instructions and Well Manager	d explanations are available ment Coordinator at 416-2	on the back of 235-6203.	fthis form.
All metre measureme     Please print clearly in the second s	nts shall be repor	ted to 1/10 th of a metre.			Ministry Use Only		
Well Owner's Information	· · · · · · · · · · · · · · · · · · ·	<u> </u>	MUN	Co	ON NO	LOT	
SRR#/Street Number/Name	BRand	5	outh	Storma	4	ゲ	
RR#/Street Number/Name	nekd		City/Town/Vi	Storma lage Anwa	Site/Compartmen	t/Block/Tract et	C.
GPS Reading NAD	Zone Easting	Northing (	Unit Make/M	odel Mode	of Operation: Undifferent	-	aged
8 3 Log of Overburden and			Mazell	<u> </u>	Differentiate	ed, specify	
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longy gran	el .	· · · · · · · · · · · · · · · · · · ·	<u>,</u>	Pac	hed.	1280	14,02
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				4			7/
Hole Diameter	1 miles miles	Construction Reco	ord		Test of W	/ell Yield	
Depth Metres Diamete	:t inside	Wall	Depth	Metres	<b>3</b>	· · · · · · · · · · · · · · · · · · ·	ecovery
From To Centimetro	ulanı	aterial thickness centimetres	From	То	min	Water Level Timé Metres min	Water Level Metres
0 1402 2123		Casing			Pump intake set at - Static (metres) Level	540	8.60
1402 3048 555	Steel	Fibreglass			Pumping rate 1 (litres/min)	, 1	7.40
Water Record	- V5.55 ☐ Plasti	Concrete 0.48	£0.60	14.02	Duration of pumping / 2	646 2	
Water found at Metres Kind of Water	<del></del>				hrs + min		
7 m Fresh Sulphu	ur Plasti	Concrete		7	Final water level end 3 of pumping metres	6.85 3	7,00
Gas Salty Minera	Z		<del> </del>	<u> </u>	Recommended pump 4	20 4	6.67
m Fresh Sulphu	II Diseti	Fibreglass	er".		Shallow Deep Recommended pump 5	7.15 5	6.46
Gas Salty Minera	Galva	1	* mg.		depth. 27_metres		6:40
☐ m ☐ Fresh ☐ Sulphu☐ Gas ☐ Salty ☐ Minera		Screen		<u> </u>	Recommended pump 10 rate. (litres/min) 15	7.57 10 7.55 15	5.40
Gas Salty Minera Other:	diam	Fibreglass Slot No.	•	!	If flowing give rate - 20	20	3.70
After test of well yield, water was	Galva	— »			(litres/min) 25 If pumping discontin- 30	822 25 840 30	
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Depth set at - Metres Material and		ot coment slurny) etc Volum	e Placed metres)		w show distances of well from roa		uilding.
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	Manual of Canata	intlan		Capa	and l	500	.
Cable Tool	Method of Constru ary (air)		Digging	Contin	onel	n	n and state
☐ Rotary (conventional) ☐ Air p☐ Rotary (reverse) ☐ Borio	percussion	Jetting  Driving —	Other	aka	incl by	the second	,
	Water Use			Qua	man -	weep	<b>′</b>
	istrial nmercial	Public Supply   Not used	Other				
Irrigation Mun	icipal	Cooling & air conditioning		Audit No. 7	43156 Date Well	Completed	106 9
Water Supply Recharge	Final Status of \		ned, (Other)	Was the well ov	vner's information Date Deliv		MM DD
Observation well Abandon	ed, insufficient supply	Dewatering		package delivere			<u> </u>
Well C	ed, poor quality contractor/Technicia	n Information	· · ·		Ministry Use Onl		
Name of Well Contractor	AR a PA	Well Contractor's L	icence No.	Data Source	Contracto	4 1 4	
Business Address (street name, re				Date Received	2006 MM DD Date of In	spection yyyy	MM DD
Name of Well-Lechnician (last name	ne, first pame)	vyell Technician's L	icence No.	Remarks		ord Number	<del>                                     </del>
JAme		6-19	3				
Signature of Technician/Contracto	Bungar	06	06 7				
0506E (09/03)	Contractor's	Copy Ministry's Copy	∐ Well Ow	ner's Copy 🗌	· Cette fölmul	e est disponible	en trançais

♥ Ontario	Ministry of the Environment	Tag l A 03	5236 below	·	Well Record
Instructions for Complet		A03	6236		page of
Questions regarding co     All metre measurement	e of Ontario only. This documpleted in full to avoid delampleting this application cants shall be reported to 1/	ays in processing. In be directed to the	Litthar materials	and explanations are availat gement Coordinator at 416	ole on the back of this form. 6-235-6203.
Please print clearly in bi			Lucial III	Ministry Use O	nly
_ XTOR MON	y/District/Municipality)	Towns	ship	2 mont Lot	Concession
RR#/Street Number/Name	with BRanch R		y/Town/Village ORn wall		ent/Block/Tract etc.
8 ₁ 3 /	ne Easting No. 127 E 4	9911711	Make/Model Me	ode of Operation: Undiffere	ntiated Averaged ated, specify
Log of Overburden and B General Colour Most commor		structions) Vaterials	Good	eral Description	Depth Metres
BRom +111			- Gen	1 Land	From To
grey xill			7	Hard	3.9 5.48
Jan 11m	stor			izered	5.48 9/44
		<u> </u>		<i>O</i>	•
	- And the state of				
	1				
Hole Diameter  Depth Metres Diameter	Inside	struction Record Wall	Don'th Make		Well Yield raw Down Recovery
From To Centimetres	diam Material centimetres	thickness ——	Depth Metres From To		Water Level Time Water Level
0 13 3623		Casing	·	Pump intake set at - Static (metres) Leve	
7,3 7 6	SteelFibreglas		16 05	Pumping rate - 1 (litres/min)	1
Water Record Water found Kind of Water	Galvanized	0.41	0.60 7.3	Duration of pumping 2 hrs + min	2
│	Steel Fibreglas			Final water level end 3 of pumping	3
Other:	Galvanized  Steel Fibregias	s		Recommended pump 4	11/14
Fresh Sulphur Salty Minerals	Plastic Concrete		!	Shallow Deep  Recommended pump 5	5
m Fresh Sulphur	Galvanized	Screen	July 1	Recommended pump 10	10
Gas Salty Minerals Other:	Outside diam Steel Fibreglas			rate. (litres/min) 15 If flowing give rate - 20	15
After test of well yield, water was Clear and sediment free	Galvanized		The state of the s	(litres/min) 25 If pumping discontinued, give reason.	25 30
Other, specify		Casing or Screen			40
Chlorinated Yes No	Open hole		3 91,44	, 50 60	60
Plugging and Se	ealing Record Annu De (bentonite slumy, neat cement slum	v) etc Volume Pla	aced In diagram be	Location of We low show distances of well from ro	
From To O	ment Alast	(cubic met	Indicate north		
				M-C-	- 6
	4				
				•	<u> </u>
☐ Cable Tool Rotary	dethod of Construction (air) Diamond	Digg	ging		. 7
Rotary (conventional) Air perd	cussion Jetting Driving	Oth	er ————————————————————————————————————	· •	
Domestic Industri	Water Use ☐ Public Sup	pply Doth	ér		
Stock Comme		air conditioning	Audit No. 🚅	Date Wel	l Completed
Water Supply ☐ Recharge w	Final Status of Well  Unfinished	☐ Abandoned,	(Other) Was the well	43150 owner's information Date Deli	vered YYYY MM DD
Observation well Abandoned, Test Hole Abandoned,	insufficient supply Dewatering Deor quality Replacement		package delive	ered? Yes A	
Well Con Name of Well Contractor	tractor/Technician Informat	ion Vell Contractor's Licen	ce No. Data Source	Ministry Use On Contracto	é
Business Address (street name, numb	er fity etc.)	14 14	Date Received	Date of In	414
STALBIN		Vell Technician's Licen	JUN 4	3 2000	ord Number
Signature Fachnickan Contractor	ne	ate Submitted YYYY M		-	·
14 Th 1/4.			105		

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	nistry of Well Ta	g Num	02150	(v)	Regulation 903	Well Record Ontario Water Resources Act
Instructions for Completing  For use in the Province of All Sections must be comp Questions regarding completions All metre measurements Please print clearly in blue	Ontario only. This docum eleted in full to avoid delayse eting this application can l shall be reported to 1/10	s in processing be directed to t	ı. Further in	structions and Vell Managem	explanations are ava ent Coordinator at 4 Ministry Use	illable on the back of this form. 416-235-6203.
Well Owner's Information a	nd Location of Well Info	ormation	MUN	Co	N	LOT
RR#/Street Number/Name	11 mm	C	ity/Town/Villa	me el	Site/Compa	/ ぬし rtment/Block/Tract etc, 52R~5 H 0 H
GPS Reading NAD Zone  8 3 / 9  Log of Overburden and Bec  General Colour Most common m	Irock Materials (see ins	7 <u>92075</u> tructions)	Init Make/Mo	lla L	of Operation: Undi	ifferentiated Averaged prentiated, specify
grey 7/1/ grey granel				- /-	Hand Hand Part of	2.13 2.13 12.19 12.19 12.80
lgrey 10 mest			**	/6	ayered	17.80 2012
Hole Diameter	Con	struction Reco	rd		Tes	t of Well Yield
Depth Metres Diameter From To Centimetres  0 12.80 2(23)	Inside diam Material centimetres	Wall thickness centimetres	Depth From	Metres	Pumping test method  J. P. Sub  Pump intake set at - (metres) 15	Draw Down Recovery Time Water Level Time Water Level min Metres min Metres Static Level 2, 13 3.42
Water found at Metres Kind of Water	/Ssteel Fibreglass /Ssteel Fibreglass /Ssteel Concrete Galvanized  Steel Fibreglass	0.48	1,060	12.80	Pumping rate - (litres/min) 4 0  Duration of gumpinghrs + 0 min	2 2,53 2 2 90
Gas Salty Minerals Other:  Fresh Sulphur Sulphur Sulphur Sulphur	Plastic Concrete Galvanized Steel Fibreglas Plastic Concrete			·	Final water level end of pumpingmetres  Recommended pump type.  Shallow   Deep Recommended pump	4 2.66 4 2 77
Other:    M   Fresh   Sulphur   Gas   Salty   Minerals   Other:	Outside diam Plastic Concrete				Recommended pump rate. (litres/min) If flowing give rate -	10 10 2 58 15 15 2. 44 20 20 7, 40
After test of well yield, water was  Clear and sediment free  Cther, specify  Chlorinated	Galvanized	Casing or Scre	en 12,80	20-22	(litres/min)  If pumping discontinued, give reason.	25 25 3 3 4 30 30 2 2 3 40 40 40 50 50 60 60
Plugging and Sea  Depth set at - Metres  Material and type From  To	bentonite slurry, neat cement slur	lar space Ab	e Placed metres)	Indicate north by	arrow.	of Well rom road, lot line, and building.
	*			Hed	Ine RA	7
Cable Tool Rotary (a Rotary (conventional) Air percurbang Rotary (reverse) Boring			Digging Other		Commit	- saref
	rcial Not used	pply air conditioning	Other	Audit No. Z	21778	ate Well Completed
☐ Test Hole ☐ Abandoned, Well Conf	insufficient supply Dewatering Poor quality Replacent Information	ng nent well	icence No.	Was the well or package delivered Data Source	Ministry Us	ontractor
Business Address (street name numb	city etc.	Well Contractor's L		Date Received JUN 2 Remarks	4 2005	ate of Inspection YYYY MM DD
Signature of Technician/Contractor  0506E (09/03)		Date Submitted Ministry's Copy		ner's Copy 🗌	Cette	formule est disponible en françai

	finistry of ne Environment	Wel Num	mher (Place slicker and pri	nt number below)	Regulation 903 Ontari	Well Record o Water Resources Act
Instructions for Completin	g Form	$\Box P$	1017051		ų.	page of
• For use in the Province of	of Ontario only. Ti	nis document is	s a permanent <b>leg</b> a	document. Ple	ease retain for future refere	ence.
All Sections must be com	pleted in full to av	oid delays in pr	rocessing. Further	instructions and	explanations are available o nent Coordinator at 416-23	n the back of this form.
All metre measurements	s shall be reporte	ed to 1/10th of a	a metre.	vveii ivianageni		
Please print clearly in blue					Ministry Use Only	G 4 LOT 6
Wall Owner's Information	and Location of	Well Informat	tion MON S	30010	NICONI	C Apr LOI
Starmant			Cornn	1	6	<u> </u>
RR#/Street Number/Name	11 1		City/Town/V	ilage Wall	Site/Compartment/I	Block/Tract etc.
GPS Reading   NAD   Zon		Northing	Unit Make/M	odel Mode	of Operation: Undifferentiate	ed XAveraged
8 3 1 8		5999		10	Differentiated,	, specify
Log of Overburden and Be		Other Materials		General	Description	Depth Metres
General Colour Most common	material	Otriel Materials		- General	Description	From To
Brown +111	B	oy Ide C	5 - 6	1050		0 5.1
Brown Till		tones,		rcked		21 018
Grey Till	<i>O</i>	ravel	ra	cked,		0.8 15,6
Grey Linesto	ne		La	yered	and the state of t	15.6 24.0
				[· · · · · · · · · · · · · · · · · · ·		
	1					
	<u> </u>					
Hole Diameter  Depth Metres Diameter	:		tion Record		Pumping test method Draw	Down Recovery
Depth Metres Diameter From To Centimetres	Inside Ma		Wall Depth ckness	Metres	Time W	ater Level Time Water Level
0 24,0 15,2	centimetres	1	timetres From	To		Metres min Metres
		Cas	sing		(metres) 5 Level	1.6
	X Steel	Fibreglass	1000		Pumping rate - 1 3	1,4 1 4.5
Water Record			,48 0	15.6	Duration of pumping 2	1.2 2 3.4
Water found at Metres		Fibreglass			hrs + min	
7 m	.	Concrete			Final water level end 3 of pumping metres	1.6 3 3.D
Gas Salty Minerals	Galvan				Recommended pump 4	5.0 4 2.6
Sulphur   Sulphur	ļ     ''	Fibreglass			type. Shallow <b>☑</b> Deep.	
Gas Salty Minerals	Plastic   Galvan	Concrete			Recommended pump 5 depth. 15 metres	5.2 5 2.5
Other: Sulphur	Calvait		reen		Recommended pump 10	5.3 10 2.4
Gas Salty Minerals	Outside Steel		lot No.		rate. (litres/min) 15 C	y 15 2,2
Other:	I diam i i 🖳	Concrete			If flowing give rate - 20	20 2.1
After test of well yield, water was	∐Galvan	ized			(fitres/min) 25 4 If pumping discontin- 30	25 7.0 30 1.9
Other, specify		No Casing	g or Screen		Lueg. give reason.	5. 4 40 1.8
Chlorinated   ✓ Yes No	) Z Open h	ole	15.6	24.0		5.6 50 1.7
						5.6 60 1.6
Plugging and Se	alling Record e (bentonite slumy, neat	Annular space	ce Abandonment Volume Placed	In diagram below	Location of Well show distances of well from road,	. lot line, and building.
From To Waterial and type			(cubic metres)	Indicate north by	arrow	· · · · · · · · · · · · · · · · · · ·
0 15.6 Clay	Ben tonit	2	0.8m		Hendline !	CC N
	·					
					1 1600	
	lethod of Constru	ction			700	
Cable Tool Rotary (		] Diamond	Digging		4	
Rotary (conventional) Air perc		] Jetting ] Driving	Other		-100m	
	Water Use	) Driving		Mer	nell Ave	
➤ Domestic	: =	Public Supply	Other	' COAP	nell Ave	
Stock Comme	· · · · · · · · · · · · · · · · · · ·	Not used Cooling & air cond	ditionina	Audit No. 📆	4 0 0 0 Date Well C	Completed
	Final Status of W	eli		Z	19909	7004 MM 2
Water Supply Recharge we	: =	_	Abandoned, (Other)	Was the well ow package delivered		
Observation well Abandoned, Test Hole Abandoned,		Dewatering Replacement well		handage agilvered	And Yeard	<i>EUU1</i>   11   ²
Well Con	tractor/Technician	Information		Data Source	Ministry Use Only Contractor	4.000
Name of Well Contractor	<u>d</u> : : : : : : : : : : : : : : : : : : :		ntractor's Licence No.	Data Source	Outri acioi	4609
Business Address (street pame, numb	er, city etc.)			Date Received <b>DEC</b>	Date of Insper	ection yyyy MM DD
Name of Well-Technician (jest name t	<u> </u>	Well Ted	chnician's Licence No.	Remarks	Z 3 ZUU4  Well Record	l Number
1 Jeft 5K1+ch	,	+ + T.	-146>			304900
Signature of Technician / Contractor	i	Date Subr	mitted YYYY MM DD		30	004300
0506E (09/03)	Contractor's	Copy Ministry	y's Copy 🔲 Well Ow	ner's Copy 🔲	Cette formule e	est disponible en français
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♥ Ontario the	inistry of e Environment	g Number (Place sticker and n	,	Regulation 903 Ontari	Well Record o Water Resources Act
Instructions for Completing • For use in the Province of		A01009		ease retain for future refer	page of
All Sections must be comp     Questions regarding compl     All metre measurements	pleted in full to avoid delays leting this application can b	in processing. Further e directed to the Wate	instructions and	l explanations are available o	on the back of this form.
Please print clearly in blue  Well Owner's Information at	or black ink only.		<b>%</b> /)/)/ co	Ministry Use Only	014 LOT 04
RR#/Street Number/Name	10.1	mont Corr	/illage	Site/Compartment/	Block/Tract etc.
South Branc GPS Reading NAD Zone 8 3 R	Easting Y S Nort	hing Unit Make/I	Model Mode	of Operation: Undifferentiate	·
Log of Overburden and Bed General Colour Most common m			Genera	l Description	Depth Metres From To
Grey Grave	Stone	Lo	rkad,		3.0 3.7
Grown III	o rav	el Pa	acked,	AND	7.7 14.0
Grey Limesto	ine		yered		
Hole Diameter  Depth Metres Diameter	Cons	truction Record  Wall Depth	Metres	I I amping toot moulou	v Down Recovery
From To Centimetres 24.415.2	diam Material centimetres	thickness centimetres From	То	Sumbersible min Pump intake set at - Static	Vater Level Time Water Level Metres min Metres
	Steel Fibreglass	0.48 ()	11/	(metres) 5,0 Level (Pumping rate - 1 (litres/min) 6()	7.3 1 [1.1
Water Record	Plastic Concrete Galvanized		14.0	Duration of pumping 2hrs + min	8.2 2 10.4
m Fresh Sulphur Gas Salty Minerals				Final water level end 3 of pumping Smetres Recommended pump 4	8.8 3 4.7 7.1 4 9.4
Other:    m Fresh Sulphur   Gas Salty Minerals	Steel Fibreglass			type. Shallow Deep Recommended pump 5	7.4 5 9.2
Gas Salty Minerals Other: Fresh Sulphur	Galvanized	Screen		Recommended pump 10	10.0 10 7.6
Gas Salty Minerals Other:  After test of well yield, water was	Outside diam Steel Fibreglass	Slot No.		If flowing give rate - 20	(0, 8 15 7, 3 (1, 1 20 2, 1 (1, 1 25 6, 8
Clear and sediment free	Galvanized No	Casing or Screen		If pumping discontin-	11. 8 40
Chlorinated Yes No	Open hole	14.0	24.4	50 60	12.5 60 6.2
Plugging and Sea  Depth set at - Metres From To Material and type	alling Record 🔼 Annul (bentonite slurry, neat cement slurr	Mahama Diagod	In diagram belov	Location of Well w show distances of well from road y arrow. //	i, lot line, and building.
	Beutonite	0.6m3	MeCop	nell   Elkm ->	16
		,	HVe	e Km >	1
Me	ethod of Construction				500 m
Cable Tool Rotary (a Rotary (conventional) Rotary (reverse) Boring	ir) Diamond	☐ Digging ☐ Other			<u> </u>
□ Domestic □ Irrdustrial □ Stock		ply Other		South	Branch Rd
☐ Irrigation ☐ Municipal	Cooling &	air conditioning	Audit No. <b>Z</b> Was the well ov	10057 Date Well (	2004 17 13
☐ Test Hole ☐ Abandoned, p	nsufficient supply Dewatering Door quality Replacementation	ent well	package delivere	Ministry Use Only	
Name (Well Contractor R R)  Business Address (street name, number	146	Vell Contractor's Licence No.	Data Source  Date Received	Contractor	
Name of Wel Tracknician (last name) fir	•	Vell Technician's Licence No.		9 · 2004   Well Recor	
Signature of Transit Inglantractor		ate Submitted YYYY MM DD		i	5804869
0506E (09/03)	Contractor's Copy	linistry's Copy 🗍 Well O	wner's Copy 🔲	Cette formule	est disponible en français

0506 (07/00) Front Form 9

| Print only in spaces provided.  Mark correct box with a checkmark, where applicable.  South  Township/Borough/City/Town/Village  Country or District  Township/Borough/City/Town/Village  Con block tract su  Address  Address  South  Receptor  Northing  RC  Elevation  South  Address  Complete  LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)  General colour  Most common material  Other materials  Coencel  Cray  IIII   ted 04/09/0" day month ye                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Country or District  Township/Borough/City/TownVillage  Con block tract su  Address  Address  Southing  RC Elevation Bern Been Complete  Complete  LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)  General colour  Most common material  Other materials  General description  BROWN  They  Innestone Recht  Shale  Appendix  Appendix  31  32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ted 04/09/0" day month ye                                    |
| Address Such American  Northing Remark Complete  | ted day month ye                                             |
| LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)  General colour Most common material Other materials General description  BROWN 1:11  Rec Elevation Ber Association See instructions)  General description  Brown 1:11  Boulders  Cray 1:11  They will be a second of the secon | day month ye                                                 |
| LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)  General colour Most common material Other materials General description  BROWN I'!!  CREY I'!  CREY I'!!  CREY I'!!  CREY I'!!  CREY I'!!  CREY I'!!  CREY I'!  CREY I' |                                                              |
| General colour Most common material Other materials General description  BROWN 1/1/ Boulders Deniel  Frey 1/10005 Rock Shale Layered  31 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Dank fact                                                    |
| Cray Till II I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Depth - feet From To                                         |
| 31 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0 12                                                         |
| 31 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 12 38                                                        |
| 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 38 100                                                       |
| 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
| 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
| 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -                                                            |
| 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
| 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
| 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
| 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                              |
| 41 WATER RECORD 51 CASING & OPEN HOLE RECORD Sizes of opening 31-33 Diame                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ; 75<br>; 75<br>; 75<br>; 75<br>; 75<br>; 75<br>; 75<br>; 75 |
| at - feet Kind of water diam Material thickness From To                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | inches fe                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Depth at top of screen                                       |
| 15-16 1 Fresh 3 Sulphur 19 4 Copen hole 5 Plastic 61 PLUGGING & SEALI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                              |
| 20-23   Fresh   3   Sulphur   24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Abandonment  (Cement grout, bentonite, etc.)                 |
| 25-28 1   Fresh 3   Sulphur 29   5   Plastic   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39   7-39 | Torout                                                       |
| 30-33     Fresh   3   Sulphur   34   60   6   2   Galvanized   40   18-21   22-25   3   Concrete   40   18-21   23-25   3   3   Concrete   40   18-21   23-25   3   3   3   3   3   3   3   3   3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <del>J </del>                                                |
| 2 Salty 6 Gas 5 Plastic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              |
| 71 Pumping test method 10 Pumping rate 4 11-14 Duration of pumping 17-18 1 Duration of pumping 17-18 LOCATION OF WELL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                              |
| Static leve   Water level end of pumping   25   Water levels during   1   Dumping   2   Afectovery   In diagram below show distances of well from Indicate north by arrow.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m road and lot line.                                         |
| 20 100 22-24 15 minutes 30 minutes 26-28 70 70 70 70 70 70 70 70 70 70 70 70 70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                              |
| The state of end of pumping states of the st | .0                                                           |
| Hecommended pump type   Recommended   Hecommended   Hecomm |                                                              |
| 1991 GPM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | *                                                            |
| FINAL STATUS OF WELL    Water supply   5   Abandoned, insufficient supply   9   Unfinished                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 100                                                          |
| 2 ☐ Observation well     6 ☐ Abandoned, poor quality     10 ☐ Replacement well       3 ☐ Test hole     7 ☐ Abandoned (Other)       4 ☐ Recharge well     8 ☐ Dewatering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | V                                                            |
| WATERUSE 55-56 South BRAIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ich Rd                                                       |
| 2 Stock 6 Municipal 10 Other 3 Irrigation 7 Public supply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                              |
| 4 ☐ Industrial 9 ☐ Cooling & air conditioning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                              |
| METHOD OF CONSTRUCTION 57  1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                              |
| Botary (reverse) 7 Diamond 11 Other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 240452                                                       |
| Name of Well Contractor .   Well Contractor's Licence No.   Data 58   Contractor .   59 62   Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                              |
| O Date of ingression   Japan des                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | received 63-68                                               |
| St-Albert Dat-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EP 1 3 2002                                                  |
| Name of Well Technician  Well Technician's Licence No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | EP 1 3 2002                                                  |
| Signature of Technicant Contractor Submission date 9 v 2 Submission date 9 v 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SS ES2                                                       |
| 2 - MINISTRY OF THE ENVIRONMENT COPY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                              |

Ministry of the Environment

# The Ontario Water Resources Act WATER WELL RECORD

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Mark correct box with a checkmark, where applicable.

5804631

Municipality 58001	Con.			_ 104
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0506 (07/00) Front Form 9

		1 2	3004	1091	<u> Ď</u> <b>R</b> CIC		22 23
County on District	mon +	Township/Borough/Cr			Con block t	tract survey, etc.	Lot 252
		Address 788	5 South	Bearle A		Date Completed	Jan 02
1 2	M 10 1	Northing	RC	Elevation RC	Basin Code	diay ii iii	month yea
1 2		F OVERBURDEN AND BED	PROCK MATERIA	LS (see instruction	ins)	<del></del>	<u> </u>
General colour	Most common material	Other materials		General o	description	Do	epth - feet To
Brown	Fill	Gravel Stones	P	ached		O	7
Grey	Till	Stones	-	Packed	<u>{</u>	Y	25
Grey	Linestone	·	/_	wyere	4		5 60
		<del></del>					-
					<u>-</u> -		
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		***					
31			بالمنابا	حتا ليليا		بللينا ل	
10 14	15 RECORD 51	CASING & OPEN HOLE	BECORD.	Sizes of op	pening 31-33	65 Diameter 34-38 Le	75 ac
Water found at - feet	Kind of water Inside diam inches	Wall thickness	Depth - feet From To		John Ng	inches	ength 39-40
	Fresh 3  Sulphur 14  10-11  10-11  10-11	inches  1 Steel 12 2 Galvanized	13	(Slot No.) Material an	id type	Depth at to	op of screen 41-44
	Fresh 3 Sulphur 19 67	3 □ Concrete 4 □ Open hole 5 □ Plastic	0 25		Luconos	<u> </u>	feet
20-23	Fresh 3 Sulphur 24	1 Steel 19 2 Galvanized	l l	223	Annular space	SEALING RECOF	nment
25.25	Salty   6   Gas	Goncrete Concrete Copen hole Copen hole Copen hole Copen hole	25   60	From Hans	To Material a	and type (Cement grout,	
30,33	Salty 6 Gas  Freeh 3 C Sulphur 34 60	1 C Steel 2 Galvanized 3 Concrete	27	18-21	22-25	ay Ben	scal)
	Salty 6 Gas	4 ☐ Open hole 5 ☐ Plastic		26-29	30-33 80		
71 Pumping test me		Tanagan or paniping		LOCA	TION OF WE	LL	
Static level W	ater level 25 Water levels during 1	☐ Pumping 2 🔀 Recovery	In dia Indica	gram below show o	distances of w	ell from road and I	ot line.
If flowing give rat	22-24 15 minutes 30 minutes 29-3	45 minutes 32:34 60 minutes 35:37		Connell	/		N
If flowing give ral		t feet feet feet 42	ll ''1	Onne	i		0
Hecommended pu		Recommended 46-49		Ave	16	iles -	1
☐ Shallow ) 50-53	Deep pump setting V fee	pump rate 10 GPM		1	15 W	1169	1500
FINAL STATUS Water supp							J
² ☐ Observation ³ ☐ Test hole	n well 6 ☐ Abandoned, poor quality 7 ☐ Abandoned (Other)	upply ⁹ ☐ Unfinished ¹⁰ ☐ Replacement well			<del></del>		_
⁴ ☐ Recharge w							
1 Domestic 2 Stock	55-56  5 Commercial 6 Municipal	9		500	+4 R	ranchi	Qd
3 ☐ Irrigation △ ☐ Industrial	7 ☐ Public supply  □ Cooling & air conditioning	1					
METHOD OF CO	ONSTRUCTION 57			ļ			# A
2 Rotary (condition of the state of the stat	51 ☐ Air percussion ventional) 6 ☐ Boring erse) 7 ☐ Diamond	9 Driving 10 Digging 11 Other				0.40	
4 At Hotary (air)	^a ☐ Jetting					243	282
Name of Well Contract	6LBR Ltd	Well Contractor's Licence No.	Data source	SB Contractor	59-62	JUN 0.6	2002 63-68 HO
Address	11	1 ,,,,,	Date of inspect	ian Ins	pector	VVII U 0 (	החת
Name of Well Technic	tian D	Well Technician's Licence No.	Remarks				
Signature of Technicis	en/Contractor	Submission date	Remarks				-

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#### The Ontario Water Resources Act ( Ontario Ministry WATER WELL RECORD of the **Environment** Print only in spaces provided. Mark correct box with a checkmark, where applicable. 11 5804403 58001 CON 1 104 County or District Township/Borough/City/Town/Villa Con block tract survey, etc. 5+ 0Bm ant month year LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions) Depth General colour Other materials General description From +,11 12 12 39 78 WATER RECORD **CASING & OPEN HOLE RECORD** Water found at - feet Inside Wall thickness Kind of water Material inches inches Sulphur Minerals Gas Material and type Depth at top of screen ☐ Salty ☐ Steel ☐ Galvanized ☐ Concrete Е Concrete Open hole Plastic ☐ Sulphur ☐ Minerals ☐ Gas ☐ Fresh 41 **PLUGGING & SEALING RECORD** Sulphur Minerals Gas Abandonm Galvanized Concrete Fresh Depth set at - feet 1.88 Saity 41 Sulphur Minerals Gas 25.45 Fresh 25 ☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic ☐ Fresh ☐ Salty d of pumping **LOCATION OF WELL** 2/2) GPM ∃ Baile In diagram below show distances of well from road and lot line. Water level end of pumping Water levels during Indicate north by arrow. 45 minutes 15 minutes 26 26. Water at end of tes GPM ☐ Clear oudy Recommended pump type Recommended Recommended t €ep pump rate □ Shallow GPM FINAL STATUS OF WELL I Water supply ☐ Observation well ☐ Test hole ☐ Recharge well **WATER USE** □ Commercial □ Municipal □ Public supply □ Cooling & air conditioning Domestic Stock 9 🔲 Not use METHOD OF CONSTRUCTION 57 ☐ Cable fool ☐ Rotary (conventional) ☐ Rotary (reverse) — totary (air) ☐ Air percussion☐ Boring☐ Diamond☐ Jetting Driving Digging 209972 ONLY 414 source MAR 3 1 2000 USE MINISTRY CSS.ES0 0506 (11/98) Front Form 9 2 - MINISTRY OF THE ENVIRONMENT COPY

# The Ontario Water Resources Act WATER WELL RECORD

0506 (07/94) Front Form 9

Print only in spaces provided. 5804246 Mark correct box with a checkmark, where applicable. 11 58001 County or District Con block tract survey, etc. Lot C+ORmon KOF 3 Date completed LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions) Depth - feet Other materials General description General colour Most common material From To 10 BRoun bouldurs boulders 14 San 10 2 ک 14 32 10 14 15 21 بالسلسا 1111 WATER RECORD 51 **CASING & OPEN HOLE RECORD** Water found at -- feet Inside Wall thickness Material inches inches ☐ Sulphur ☐ Minerals ☐ Gas Material and type Depth at top of screen Steel
Galvanized
Galvanized
Goncrete
Gonerate
Gonerate
Gonerate
Gonerate
Gonerate
Gonerate
Gonerate ¹ ∐ Fresh ² Salty s Sulphur
 Minerals
 Gas ¹ 🗇 Fresh ¹ ☐ Fresh ੍ਰੈ ² ☐ Salty 6 **PLUGGING & SEALING RECORD** Steel
Galvanized
Galvanized
Concrete
Copen hole
Galvanized ☐ Sulphur ☐ Minerals ☐ Gas Dendonment ¹ ☐ Fresh Annular space 2 🗌 Salty From Sulphur Minerals Gas □ Fresh Steel A

Steel A

Galvanized

Concrete

Copen hale

Plastic 2 🗌 Salty 27-30 Sulphur Minerals Gas □ Fresh 2 ☐ Salty Pumping test method Duration of pumping
.... Hours .... 世州 **LOCATION OF WELL** GPM ☐ Pump 2 ☐ Baile In diagram below show distances of well from road and lot line. Water level Static leve Indicate north by arrow. 15 minutes 45 minutes 60 minutes 32-34 35 37 Water at end of test If flowing give rate omp intake set at L. Cloudy ∐ Clear Recommended pump type Recommended Recommended 10+ling pump setting pump rate ☐ Shallow ☐ Deep **GPM** 54 FINAL STATUS OF WELL Substitution of the property Water supply
Observation well
Test note
Recharge well WATER USE □ Commercial
 □ Municipal
 □ Public supply
 □ Cooling & air conditioning □ Domestic
 □ Stock
 □ Irrigation 9 **W**Notused № C Other .... 4 ☐ Industrial METHOD OF CONSTRUCTION | Cable tool | 4 Air percussion | Cable tool | Air percussion | Cable tool | Cable ☐ Driving☐ Digging☐ Other ... 187349 Well Contractor's Licence No source JUN 1 2 1998 illes BuRgeois Date of inspection USE Weil Technician's Licence MINISTRY 0-193 CSS.

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# The Ontario Water Resources Act WATER WELL RECORD

Print only in spaces provided. 5804245 Mark correct box with a checkmark, where applicable. 58001 CON County or District Township/Borough/City/Town/Village Con block tract survey, etc. Lot Fa 3 StORm StoRmon Date LOG OF OVERBURDEN AND BEDROCK MATERIALS (see Instructions) Depth - feet General colour Most common material Other materials General description From To BADWY boulders O +:11 14 25-14 25 74 31 32 ┙╘┰┰╌╬┇╏╏┆╏╏╏╗┸╌╄╂┰╄┰╇ Sizes of opening (Slot No.) **CASING & OPEN HOLE RECORD** WATER RECORD Inside diam inches Wall thickness Water found at - feet Kind of water Depth at top of screen 41-44 1 🛘 Fresh 1 ☐ Steel **
2 ☐ Galvanized
3 ☐ Concrete
4 ➡ Open hole
5 ☐ Plastic Minerals Gas i² ∐ Salty Sulphur Minerals Gas ¹ 🗇 Fr 8 2 ☐ Syffty **PLUGGING & SEALING RECORD** Steel

Steel

Galvanized

Concrete

Open hole

Plastic Sulphur Minerals Gas Abandonment Fresh Depth set at -☐ Saltv Sulphu □ Fresh I Steel
2 Galva
3 Concr
4 Open
5 Plastic ☐ Minerals ☐ Gas 2 Salty 27-30 Galvanized Concrete Open hole Plastic ☐ Sulphur ☐ Minerals ☐ Gas ☐ Fresh ² 🗌 Salty Duration of pumping Pumping test method Pumping rate ₩3 LOCATION OF WELL ☐ Pump 2 ☐ Baile GPM In diagram below show distances of well from road and lot line. Indicate north by arrow. Water level end of pumping 2 🗆 Recovery Static level 1 🔲 Pumping 45 minutes 32-34 1B · 21 22-24 15 minutes PUMPING TEST feel ; If flowing give rate Water at end of test GPM ∟' Clear 43-45 Recommer ded pump type Recommended pump rate □ Shallow □ Deep GPM FINAL STATUS OF WELL Water supply
 Observation well
 Erect hole
 Recharge well ▼ □ Dewatering WATER USE 55-56 9 🔼 Not used 10 🗌 Other ..... 1 Domestic
2 Stack
3 Irrigation METHOD OF CONSTRUCTION 9 Driving
10 Digging
11 Other ... 187350 Well Contractor's Licence No JUN 1 2 1998 ONLY saurce MINISTRY USE 193 CSS. 0506 (07/94) Front Form 9 2 - MINISTER OF ENVIRONMENT & ENERGY COPY



## The Ontario Water Resources Act WATER WELL RECORD

0506 (07/94) Front Form 9

Print only in spaces provided. 11 5804244 Mark correct box with a checkmark, where applicable. 58001 Con block tract survey, etc. Lot Fee 32 County or District Township/Borough/City/Town/Village STOR STOR Date 98 OBnu. completed LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions) Depth - feet Other materials General description General colour Most common material From BRown 10 bouldurs 15 BBOUR 15 29 3 33 33 43 32 14 15 1 | 21 إ لشلسلسيا CASING & OPEN HOLE RECORD Sizes of opening (Slot No.) 51 WATER RECORD Water found at - feet Inside diam inches Wall thickness Depth - feet То Sulphur
Minerals
Sulphur
Sulphur
Minerals
Gas Depth at top of screen ☐ Fresh د^{اء} ∕N, Salty ☐ Fresh 2 🛚 Salty PLUGGING & SEALING RECORD Steel
Galvanized
Concrete
Copen hole
Plastic ☐ Sulphur ☐ Minerals ☐ Gas □ Fres Depth set at ² □ Syafty Material and type (Cement grout, bentonite, etc.) From 3 × 3 ☐ Sulphur ☐ Minerals ☐ Gas Fresh Steel 2 Galvanized Gal ☐ Salty Sulphur Minerals Gas 2 [] Salty Duration of pumping Pumping test method Pumping rate サス **LOCATION OF WELL** ☐ Pump 2 ☐ Bailer In diagram below show distances of well from road and lot line. Indicate north by arrow. Water level 1 📋 Pumping Static level Water levels during end of pumping 19-21 30 minutes 15 minutes 60 minutes feet fee: PUMPING If flowing give rate Head line Rd GPM ☐ Clear ☐ Cloudy Recommended pump type Recommended pump rate ☐ Shallow ☐ Deep **GPM** FINAL STATUS OF WELL S ☐ Abandoned, insufficient supply S ☐ Unfinished
G ☐ Abandoned, poor quality III ☐ Replaceme
C ☐ Abandoned (Other)
Dewatering □ Water supply
□ Observation well
□ Lest hole
□ Recharge well 55 56 WATER USE 1 Domestic
2 Stock
3 Irrigation
4 Industrial Matused
Other .... METHOD OF CONSTRUCTION 9 Driving
10 Digging
11 Dther ... 187351 ONLY TUN 1 2 1998 Date of inspection USE MINISTRY ( Well Technician's Licence No. 0-193 CSS.

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# The Ontario Water Resources Act WATER WELL RECORD

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. 21		и м —	12	10 13	Jorthing	24 2	HO Llev	ation AC	Basin Code	ii 	iil	iv ]
		10		VERBURDEN A			TERIALS	(see instruct	tions)			
Ge	neral colour	Most common mate	erial	Other	materials		General description Depth – feet From To					
	Roun	+111	3					11	and		0	8
9	rey	+111						Ha	nd_		8	20
6	My_	Sand	-					pa	che	d	20	32
6	Coly	BAstrem Roc	t .					FRE	Hus	e e	32	35-
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32	10 10	TED DECORD	51	CASING & OF	EN HOL	F BECORD	1.1.1.1.	Sizes of a	nening 3	33 Diameter	34-38 Leng	75 80 110 39-40
Wat	er found feet	TER RECORD  Kind of water	Inside diam		YEN HOLI Wall thickness	Depth -	feet	4001 1 81 1	op coming.	Biameter	nches Leng	feet
al -	10-13 I	Fresh ³ Suiphur ¹⁴	inches 10-11 1	∐ Steel ¹²	inches	From	To 13-16	Material &	and type		Depth at top	
-		Salty 6 Gas		☐ Galvanized ☐ Concrete ☑ Open hole		<b>/</b> )	35	69				feet
	2 [	Salty 6 Gas	5 s	☐ Píastic	<u> </u>		20-23	61	PLUGGING Annular space	3 & SEALIN	G RECOR	
		Fesh 3 Sulphur 24   Minerals   Gas	3 1	☐ Galvanized			:	Depth set at	- feet Mater	ial and type (Ce		
	25-28	Fresh ³ E Sulphur ²⁹ Salty ⁴ E Minerals	5	☐ Plastic			27-30	From -	10	ston T	<del></del>	
	30-33	Fresh 3 Sulphur 34 80	2 3	☐ Galvanized ☐ Concrete			27-30	18-21	22-25	4.4.4.7.	0	/
	2	Salty \$ Gas		☐ Open hole ☐ Plastic				26-29	30-33 80			
71	Pumping test m		11-14 E	Duration of pumping	17-18 Mins			LO	CATION OF	WELL		
	V	Vater level and of pumping Water levels			Recavery	12 1 H	In diagram	below show orth by arrow.	distances of	well from roa	ad and lot li	ine.
EST	19-21	22-24 15 minutes 26-28	30 minutes 29-31	45 minutes 60 r	minutes 35–37			Ŋ				
Ş	feet	feet feet	feet	feet   Water at end of test	feet 42			1	، ه اب	ad lim	Rd	
PUMPING TEST		GPM	feet	□ Clear □	Claudy	_			112	- 1( )/		
[4	Recommended    Shallow	Pump type Recommended pump setting		Recommended oump rate	GPM:		1.6	(				
	0-53		ieet ;		GF NI		li	v2	_,			
i	AL STATU: Use Statu: U	oply 5 ∐ Abandone		ply ⁹ ∐ Unfinished ¹⁰ ☐ Replaceme					$\chi$			
	Test hole     Recharge	⁷ ∐ Abandone	d (Other)	,					2			
WA	TER USI:	55-56							2			
.	Domestic	⁶ ☐ Municipal		Not used  Other				, i	$\setminus$			
3 ☐ Irrigation 7 ☐ Public supply 4 ☐ Industrial 8 ☐ Cooling & air conditioning												
ME	METHOD OF CONSTRUCTION 57							+32	-6 xg	•		
	<ul><li>2 ☐ Actary (c.</li><li>3 ☐ Actary (re</li></ul>	onventional) 6 🗍 Boring everse) 7 🗎 Diamond	aiUf1	□ Driving □ Digging □ Other					Κ,		1873	4.8
	· Prota y (a	lr) s ☐ Jetting										, -r <b>U</b>
1	ne of Well Contr	actor		Well Contractor's L	Licence No.	Data source		Sa Contracctor	7 A	59-62 Date rece		63-66 80
Adi	//e S ress	Bown ges	ڪرو	1414		O Date o	f inspection	114	1 4	אטנ"	121	998
3	TA)	16 er 4 m	~* <u> </u>	Well Technician's	Linguage No.	Remar						/x
Nar	SA	iiciari ———————————————————————————————————		1		Hemar Remar	n or			cee	20	12
Sign	ature of Techni	cian/Contractor	`	Submission date	58	Z Z			,	UJJ.	Jø	•
矬		<del><!--</del--></del>	<b>~_</b>	ENERGY C						1	0506 (07/94) F	ront Form 9

County or District

General colour

31 32

Water found at - feet

WATER RECORD

Fresh
2 Galty

l ☐ Fresh 2 ☐ Salty

¹ 🛮 Fresh

2 🗌 Salty

¹ ☐ Fresh ? □ Salty

Kind of water

☐ Sulphur ☐ Minerals ☐ Gas

Sulphur Minerals Gas

☐ Sulphur ☐ Minerals ☐ Gas

☐ Sulphur ☐ Minerals ☐ Gas

Sulphur Minerals Gas

Print only in spaces provided. Mark correct box with a checkmark, where applicable.

Most common material

		e e e e e e e e e e e e e e e e e e e	The On	tario Wate	r Rosour	cos Act
				ATER WI		
applicable.	11,	58042	11 §	Min squ sy 5,800,1	COM	04
	Township/Borough/City	/Town/Village	Cor	n block tract s	survey, etc. Lo	ot 25-27
	Address	ORNIA	Vall	Date complet	ted 27 /	nonth year
<u>j</u>	Northrig	RQ Elev	30 31	n Code		iv
LOG OF OVE	RBURDEN AND BEI	PROCK MATERIALS	(see instructions)	l		
ı	Other materials		General desc	ription	From	epth – feet To
oush	Dug	Well			0	24
	Dou Idea	25	Dense	<u> -</u>	24_	42
Rock			LAVERE	d	42	50
				<del></del>	i	
	<del>.</del>					
						- 1
			· · · · · · · · · · · · · · · · · · ·			N. A.
			1			
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	1		1			I I'M
				ا ا الله		75 80
51 (	ASING & OPEN HOL		Sizes of opening (Slot No.)		neter ³⁴⁻³⁸ Len	
	Wall thickness	Depth - feet From To	(SIGENO)		inches 💝	\= feet
inches		13-16	(Slot No )  W Material and typ	e		o of screen 30
	Galvanized Concrete	0 42	<b>o</b>			1eet

71	D ive toot mothed 10	
<i>,</i> .	Pumping test method 10	Pumping rate Duration of pumping 17-18
	¹ [] Pump <b>°∭</b> Bailer	GPM Hours Mins
	Static level end of pumping	Water levels during ✓ Pumping ? ☐ Recovery
TEST	15 30	15 minutes 30 minutes 45 minutes 60 minutes 29 31 28 39-34
OMPING	feet feet If flowing give rate 58 41	feet   Feet
ਛੋ	GPM	50 feet □ Clear ————————————————————————————————————
2	Recommended pump type	Recommended 43-45 Recommended 46-49 pump setting pump rate
	∃ Shallow	35 feet /D GPM
	50-53	
	Water supply  Observation well	5 ☐ Abandoned, insufficient supply 9 ☐ Unfinished 6 ☐ Abandoned, poor quality 10 ☐ Replacement well
	a ☐ Test hole  Recharge well	J Abandoned (Other) Dewatering
W	<u> </u>	
W	ATER USE Dornestic Stock Injugation	3 [] Dewatering
	ATER USE Dornestic Stock Injugation	55-50  55-50  5
	ATER USE Dornestic Stock Claringation Clarin	55-50  55-50  5

☐ Steel ☐ Galvanized☐ Concrete☐ Open hole☐ Plastic

Steel ²⁶ Galvanized Concrete Open hole Plastic

,		CATION OF WEI	
In diagr Indicate	am below show north by arrow.	distances of well	from road and lot line.
J.		NT.	
1			
ouu		·	•
166			800'
1			
	South	BRANC	h Road
			183027

**PLUGGING & SEALING RECORD** 

Material and type (Cement grout, bentonite, etc.)

ONLY	Data source	58	Contracetor 1 4 1 4	59-62	JAN 0	5	1998	80
USEC	Date of inspection		Inspector					
MINISTRY	Remarks							
Z							*	
-					0506	(07/9	4) Front For	m 9

2 - MINISTER OF ENVIRONMENT & ENERGY COPY

Name of Well Contractor

- Hes Bauspeais Well S. 1 1414

Address

WATER WELL RECORD Print only in spaces provided. Mark correct box with a checkmark, where applicable. 5804112 11 Con block tract Date 490 B LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions) Depth - feet Other materials General description BROWN 0 10 GREY 10 83 Almichallan Lari 32 111.11 WATER RECORD CASING & OPEN HOLE RECORD 41 51 Sizes of opening (Slot No.) Inside Wall thickness inches Water found Kind of water at - fee diam inch<del>es</del> Sulphur Minerals Gas □ → Steel
□ ← Galvanized
□ ← Concrete
□ ← Copen hole
□ ← Plastic Depth at top of screen 30 ∍ 🛘 Salty 1.88 40 ☐ Sulphur ☐ Minerals ☐ Gas ı ☐ Fresh Minerals Gas ₂ 🛘 Salty **PLUGGING & SEALING RECORD** Steel
Galvar ☐ Sulphur ☐ Minerals ☐ Gas 6" 20, 23 □ Fresh Galvanized
Galvanized
Galvanized
Gonerate
Gonera ₂ 🛮 Salty Depth set at - feet То From ☐ Sulphur ☐ Minerals ☐ Gas 25 - 28 : 🗆 Fresh Steel Galvanized Concrete Open hole Plastic . 🗌 Salty Sulphur Minerals
Gas 30 - 33 ☐ Fresh 🤊 🗌 Salty Pumping test method Pumping rate LOCATION OF WELL Water level end of pump In diagram below show distances of well from road and lot line. Water levels during ∟ □ Pumpina Indicate north by arrow. 15 minutes /6 teet 83  $28^{2}$  teet 20 if flowing give rate Water at end of test ☐ Clear Recommended pump type ☐ Shallow **GPM** FINAL STATUS OF WELL 94 → Water supply
□ Observation well
□ Test hole
□ Recharge well **WATER USE** 55 56 Domestic

Domestic

Trigation
Industrial t ☐ Commercial
☐ Municipal
☐ Public supply
☐ Cooling & air conditioning 9 Not used METHOD OF CONSTRUCTION 
 ↑ □ Cable tool
 5 □ Air percussion

 ↑ □ Rotary (conventional)
 6 □ Boring

 ↑ □ Rotary (reverse)
 7 □ Diamond

 ↑ □ Rotary (air)
 9 □ Jetting
 9 Driving ₀ ☐ Digging 176061 ONLY OCT 0 1 1996 Date of inspection USE Well Technician's Licence No MINISTRY

2 - MINISTRY OF ENVIRONMENT & ENERGY CORY

0264

96

0506 (07/94) Front

CSS.ES



MINISTRY OF THE ENVIRONMENT COPY

The Ontario Water Resources Act

FORM NO. 0506 (11/86) FORM 9

Ontario	1. PRINT ONLY IN S	PACES PROVIDED  CT BOX WHERE APPLICABLE	11	58039	7 2	15,8001	CON	. 04
COUNTY OR DISTRICT	•	TOWNSHIP, BOROUGH CITY	_		CON	BLOCK, TRAUT, SURVEY	ETC	LÖT 25-27
			ual!	- <del>-</del> -			DATE COMPLETED	48:53
		<b>≥c</b> 1	n Blan	ELEVATION .	RC	BASIN CODE	оду <u>2-7</u> мо <u>3</u>	24 YR 93
1 7 N	10 12	17 18	24 25	26	30	131		42
	FO	G OF OVERBURDEN	AND BEDRO	CK MATERIAL	S ISEE IN	STRUCTIONS		
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATE	ERIALS	,	GENERA	L DESCRIPTION	FROI	TO
a / tered	11011	ord 1502	5					
aion-mad	ev 1 7	2041 3"	5 1	1 × 7	400	7 // ha	1. plug	. X
106.	69" 570	19 to 10	5.35"	2 ( 3	m-1-1	11/20	7 105	35-11
5 1 m	s to 46	14 to 10 48', helo 7 36.21',	Alex 1	0 300.1	91	5 X M + 7 C	36.8/	, /
nie b	motor 3	7 36.20	s Xin.	. 1 20	. <u>. 4</u> /	' hads	plado	
150		terestar			<u>.</u>			
		•				<del></del>		
31							للبيا لِـ	نا ليليل
32	15 21 1 1	1111111		43 - 1 1 1	البل		للله يها ال	75
	R RECORD		DPEN HOLE	RECORD	Z SLOT		<u>                                   </u>	HES 2.5 FEET
WATER FOUND AT FEET	KIND OF WATER	INSIDE BIAM MATER AL INCHES	THICANASS	то то	5 MATE	RIAL AND TYPE	DEPTH TO OF SCREE	FOP 41-44 30
2 🗆 s.	ALTY 6 GAS	1	scape 10	13-16		174ex	544	ary & bless
35-78 1	RESH 3 SULPHUR 4 MINERALS SALTY 6 GAS	4 DOPEN HOLE	Pro	20.23	61 DIPTH 5	SECAT FEET	& SEALING R	CEMENT GROUT
20-23   f	RESH 3 SULPHUR 4 MINERALS FALTY 6 GAS	1 DSTEEL 2 DGALVANIZED 3 DCONCRETE	]		1904	10 M	ATERIAL AND TYPE	LEAD PACKER ETC 1
25-2B , [] F	RESH 3 DSULPHUR 4 DMINERALS	4 □ OPEN HOLE 5 □ PLASTIC 24-25 1 □ □ □ 26		23750	<b>S</b> ∗			
30-33 1 F	3 7 34 10	To STEEL  2 □ GALVANIZED  3 □ CONCRETE  4 □ OPEN HOLE			26-	29 30-33 80		
2 D S	ALTY 6 GAS	5 🗆 PLASTIC	<u> </u>			<u> </u>		
71 PUMPING TEST METHOD		GPMHOU	6 17-18			OCATION O		
LEVEL	NATER LEVEL 25 END OF WATER L PUMPING		PUMPING RECOVERY	IN DIA		SW SHOW DISTANCES IICATE NORTH BY ARE		OAD AND
TEST NA W	22-24 IS MINUTES	MINUTES 45 MINUTES 29 31 32-	60 MINUTES 34 35-37	11		IN	cons	
1 16 162 3	FEET FEI		OF TEST 42		11000	(P, no Ra		
IF FLOWING. GIVE RATE  RECONMENDED THE	GPM	FEET 1 CLEAN	2 CLOUDY			Co	4 12	
SHALLOW	PUMB	43-45 RECOMMENDED PUMPING FEET RATE	GPM				, ,	<del></del>
30-51							7001	14 (
FINAL	1 WATER SUPPLY 2 POBSERVATION WEI	5 ABANDONED, INSUF					, (	
STATUS OF WELL	3 TEST HOLE 4 RECHARGE WELL	7 [] UNFINISHED  DEWATERING						/
55 56	DOMESTIC	5 COMMERCIAL 6 MUNICIPAL		7				
WATER USE	3 ☐ IRRIGATION 4 ☐ INDUSTRIAL	7 POBLIC SUPPLY  8 COOLING OR AIR COND		1		1et	1015	
	OTHER	° 🔎 NOT	r USED	Er 20	لائ جام ا	6		
METHOD	CABLE TOOL ROTARY (CONVEN			1/		outh Block		<del></del>
OF CONSTRUCTION		9 🔲 DRIVING	<b>%</b>			of Cornua	11	L30432
Lune as well in		☐ DIGGING	OTHER	DRILLERS REMARI		ONTRACTOR 59 62	ATE RECEIVED	43.64 10
NAME OF WELL CO		LICE	NCE MUMBER	N SOURCE		6617	****	1995
ADDRESS ADDRESS		myls Ko	6 152	O THEF DE INSPE	CTION	INSPECTOR		••
		MET TICE	L TECHNICIAN'S	D REMAPAS CO	OLD HO	T LOCATE OR	GINAL W.W	RECORD.
SIGNATURE OF TE	CHURTAN/CONTRACTOR	SUBMISSION DATE	047	E MAY 15	/ 35, 46	•		
		5 y C/ 3 y C	05 395					

Ontario  I. PRINT ONLY IN SPACES PROVIDED  11	5803971   5,8,0,0,1   5,0,N, , , ,   10,4
2. CHECK S CORRECT BOX WHERE APPLICABLE T 2  COUNTY OR DISTRICT  TOWNSHIP, BOROLGH CITY, TOWN VILL	AGT CON BLOCK TRACT SURVEY ETC LCT 25-27
or all	1 DATE COMPLETED 48-55
We Ind	RC ELEVATION RC BASIN CODE 11 11 17
LOG OF OVERBURDEN AND BE	DROCK MATERIALS (SEE INSTRUCTIONS)
GENERAL COLOUR MOST COMMON NATERIAL OTHER MATERIALS	GENERAL DESCRIPTION DEPTH - FLET FROM TO
alleren well vered 150264	
pire-major 1 at 204'2" 57	ione to THE 7 109'11' hole
plag to 101'4" stond to	100'3" pissomotor 2 of
	plug to 41' 7" 5 you 0 da 42'0" 22'5" holo plug do 10'6" \$1.00
to sertor P	70 10 6
31	
41 WATER RECORD 51 CASING & OPEN HO	LE RECORD    SIZE IS OF OPENING   31-33   DIAMETER   34-38   CENGTH   39-40
WATER FOUND AT - FEET  10-13  1   FRESH   3   DULPHUN   10-11   1   STEEL   1   STOR   1	SLOT NO 1  CEPTH - FEET  FROM TO  MATERIAL AND TYPE  DEPTH TO TOP OF SCREEN  A1-64 30
15-18   GAS   2   GALVANIZED   3   CONCRETE   4   COPEN HOLE   4   COPEN HOLE	10 CFO SUR Oher P FELT
20 23 1 FRESH 3 GSULPHUR 24 1   STEEL 2 GALVANIZEO	20:21 DEPTH SET AT FEET MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)
SALTY   6   GAS   3   CONCRETE   4   OPEN HOLE   5   PLASTIC     SALTY   6   GAS   CONCRETE   4   OPEN HOLE   5   OPEN HOLE	27:30 18:21 22:25
30 33 1 FRESH 3 SULPHUR 34 10 3 CONCRETE 4 COMENTALS 4 COPEN HOLE 5 CPLASTIC	26-29 30-33 80
	LOCATION OF WELL
STATIC WATER LEVEL 25 GPM HOURS M	IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE INDICATE NORTH BY ARROW.
	15 15-37 16-17
U	
T SHELLOW T DEED CONTING	- 9 com
94	900m
FINAL  The state of the state o	E Form
55-56 1 DOMESTIC 5 COMMERCIAL	E Cen IV 600m
WATER    IRRIGATION   PUBLIC SUPPLY  USE   INDUSTRIAL   COOLING OR AIR CONDITIONING   OTHER   ME NOT USED	1 10t5
METHOD CABLE TOOL S BORING DIAMOND	S. Blanch
OF   ROTARY (REVERSE)   DISTING	DRILLERS REMARKS 130429
NAME OF WELL CONTRACTOR  WELL CONTRACTOR  LICENCE NUMBER	PS (016 St. CONTRICTOR CO.C.)
	WATE OF INSPECTION O 6 1 7 MAY 10 1995
ADDRESS  RR#1 Oxford Mills Ontario Kogs.  NAME OF WELL TECHNICIAN  Georg a Child H  SIGNATURE OF JECHNICIAN/CONTRACTOR  SIGNATURE OF JECHNICIAN/CONTRACTOR  SUBMISSION DATE	S PREMARES COULD NOT LOCATE ORIGINAL WILL BELORD
	-   S   MAY 15/55. 48.
MINISTRY OF THE ENVIRONMENT COPY	FORM NO. 0506 (11/86) FORM 9



Ontario	1. PRINT ONLY IN SPACES PROVIDED 2. CHECK ☑ CORRECT BOX WHERE APPLICABL	1 11 1	58039	70 క్ష్మ్మ్మ్	I CON	104
COUNTY OR DISTRICT	TOWNSHIP BOROLGH	CITY, TOWN VILLAGE		CON BLOCK TRACT SURV	EY ETC	6 25-27
	<u>x.</u>	. 4			DATE COMPLETED	48-53
. 41	4	h Planch	ELEVATION	NC BASIN CODE	(1)	
M 10	LOG OF OVERBURD	EN AND BEDRO	CK MATERIAL	S (SEE INSTRUCTIONS)		
GENERAL COLOUR	MOST OTHER	MATERIALS		GENERAL DESCRIPTION	DE FROM	PTH FEET
altered c	eell record 150	254				
						_
piesemolo				o" hole	p ( 29 /0	
5 7 3	12 5 (1" b	te plus	4 7 10"	10 2 07 costings	\$c, 45	011
stre to	45' 8" 13 2		3 07	45' 311	5 tens to	42 1
h. (	plus 10 35 state	sultand				
			<u> </u>			
31 32						
41 WATER !	RECORD 51 CASING	& OPEN HOLE F	ECORD	SIZE S) OF OPENING	31 33 DIAMETER 34 3	E LENGTH 39:49
WATER FOUND KINT	D OF WATER INSIDE DIAM MATERIAL INCHES	WALL	DEPTH - FEET	MATERIAL AND TYPE	DEPTH TO DE SCREEN	
70:13   FRESI	H 3 □ SULPHUR	School.	et 0	MAXAK		there em
	Y 6 □ GAS 5 DFLASTIC	· PVC	20.21	61 PLUGGII	MG & SEALING RE	CORD
20-23 ' [] FRES	Y 6 GAS 3 CONCRETE 4 □ OPEN HOL	: ! <b>[</b> ]		10-11 (4-17)		O PACKER ETC 1
25-26 1 FRES	Y 6 GAS	26 ED	77710	Se 0 a c	<u> </u>	
30 33 1		<u> </u>		Ze 29 30-33 ac		
71 PURPING TEST METHOD		05 PUMPING 15-16 17-18 HOURSWINS		LOCATION	OF WELL	
STATIC WATE	R LEVEL TS WATER LEVELS DURING WINDING	HOURS WING	. IN DIA	GRAM BELOW SHOW DISTAN NE INDICATE NORTH BY	ARROW.	_
2509M	26-70 29-31	NGTES 60 MINUTES 32-34 35-37		Hoodend	Cen	
Z IF FLOWING. GIVE RATE		FEET FEET FEET 42			CON	-
Z OF FLOWING, GIVE RATE	E RECOMMENDED 43-45 RECOMME	1	32	620m	Cen	
SHALLOW [	DEEP SETTING FEET RATE	GPM	I hM~ €	N T	900111	
FINAL  ,	WATER SUPPLY 5 ☐ ABANDONED.  OBSERVATION WELL 6 ☐ ABANDONED	INSUFFICIENT SUPPLY POOR QUALITY	2	13.75		]
OF WELL 4	TEST HOLE 7 UNFINISHED RECHARGE WELL DEWATERING		R	+4	1015	
2	DOMESTIC DOMESTIC COMMERCIAL STOCK DEMONSCIPAL STOCK DEMONSCIPAL STOCK DEMONSCIPAL		9	10160	•	
	INDUSTRIAL . COOLING OR AIR	CONDITIONING NOT USED				
METHOD 2	CABLE TOOL OF BOR		175	south Bron	Lea Ved 4	
	3 ☐ ROTARY (REVERSE)	ING		_	1	30431
NAME OF WELL CONTR	ACTOR	WELL CONTRACTOR'S	DATA SOURCE	58 CONTRACTOR 59-6	DATE RECEIVED	63 bg 80
C CONTAIN R	Provino envostgalino	6617	NO CATE OF INSPE	8617	MAY. 1.0.1	3 <b>95</b>
ADDRESS  RR # 1 C  NAME OF WELL TEC	deford mills ONTOR	WELL TECHNICIAN'S	S REMAPES COO	LD NOT LOCATE ON I	SINAL W.W.REC	ORD.
S GOLDO GO	NICIAN/CONTRACTOR SUBMISSION D	2047	OFFICE WAY 15	/95. AS.		
		MO 05 YR 75	ō		FORM NO. 09	506 (11/86) FORM 9

_	NLY IN SPACES PROVIDED 11	5803950   S.B.COLL   CON
2. CHECK D	TOWNSHIP, BOROUGH CITY, TOWN VILLAGE	CON BLUCK THACT, SURVEY ETC . LOT 25-17
Stormont OWNER (SURNAME FIRST) 28-47	Cornwall	DATE COMPLETED 48-53
MICALT	Lete RR# 1 Long.	Sault DAY 25 NO 10 YR 29
21 TONE BASTI		C ELEVATION RC BASIN CODE II III IV
M 10 12	LOG OF OVERBURDEN AND BEDR	OCK MATERIALS (SEE INSTRUCTIONS)
GENERAL COLOUR MOST	OTHER MATERIALS	GENERAL DESCRIPTION . DEPTH - FEET
COMMON MATERIA	u.	Packed 0 12
Brown Haidpar		0000 500 50
Drown Clay	-	Packed 39 42
Grey Horapo	1	Layered 42 120
Dizy cimesi	dne	20/2.00
31		
32		
41 WATER RECORD	51 CASING & OPEN HOLE	RECORD SIZE STOF DENING 31-33 DIAMETER 34-38 LENGTH 38-4P
WATER FOUND KIND OF WATER	inches in	RECORD  OIPTH FEET  ROW TO  MATERIAL AND TYPE  DEPTH TO TOP OF SCREEN  OF SCREEN
FRESH 3 SULPHUF 2 SALTY 6 MINERAL 6 GAS	S STEEL	0 + 1 - 3
TIS-18 1 FRESH 3 SULPHUS 2 SALTY 6 GAS	3 GONGRETE   18   19   19   19   19   19   19   19	61 PLUGGING & SEALING RECORD
Z SALTY 6 GAS	1 USTEEL 2 GALVANIZED 3 GONCRETE	10 SEAN TO STATE LEAD PACKER, ETC.1
25-28 ) FRESH 3 USULPHUI	29 4 ZOPEN HOLE 5 DPLASTIC	12 120 0 10-13 (12-17) Clay (Benseal)
30-33   FRESH 3   SULPHU	LS II I4 □ OPEN HOLE I I	26-29 10-33 80
Z SALTY 6 GAS	5 OPLASTIC	
71 PUMPING IESS METROD TO PUMP	6 GPM 15-16 0017-18	LOCATION OF WELL
	VATER LEVELS DURING PUMPING	IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND
18-20 15 h	11 NUTES 30 NINUTES 45 M NUTES 60 MINUTES 20-37 6 1 32-34 7 75-37	1 Karaila - No
	INTAKE SET AT WATER AT END OF TEST 42	<u> </u>
GPM GPM	FEET 1 □ CLEAR 2 1 CLOUDY  MMENDED, 43.45 RECOMMENDED 46.49	11 100
SHALLOW DEEP SETTI	PUMPING /	The state of the s
36 7		HeidlineRd
FINAL  STATUS  WATER SUI  DESERVATI  TEST MOLE	ON WELL #   ABANDONED POOR QUALITY	
OF WELL 4   RECHARGE		11 11
2 DOMESTIC	S COMMERCIAL MUNICIPAL	
USE   IRRIGATION	L • COOLING OR AIR CONDITIONING	
		McCannell
METHOD   CABLE TOO	ONVENTIONAL) 7 🔲 DIAMOND	McConnell Avenue
CONSTRUCTION 4 & ROTARY (A	IR) F 🗇 DRIVING	150262
NAME OF WELL CONTRACTOR	WELL CONTRACTOR'S	DATA SA CONTRACTOR 59-62 DATE RECEIVED 53-60 RD
E ROY LBR	L+d 4609	SOURCE 4609 MAR 02 1995
ADDRESS  ADD	WELL TECHNICIAN'S	w
NAME OF WELL TECHNICIAN  RAUGH ROY	LIGENCE NUMBER	
O SIGNATURE ON ECHNICIAN/CONTRA		OFFICE COFFICE
MINISTRY OF THE ENVIR	<del></del>	FORM NO. 0506 (11/86) FORM S



Oi	ntario	1 PRINT ONLY IN :	SPACES PROVIDED	11	580	3948	}	<u>ଛ୍ଲ'ବଟମ</u> ।	CO.N.	1,04
CO	UNTY OR DISTRICT		TOWNSHIP, BOROUGH CI	11	-		CON BLUCK	TRACT SURVEY E	ETC	LOT, 25-27
			aw	<u>a 11</u>	<u> </u>		//		DATE COMPLETED	10 yr 98
			ead.	lineke	ELEVA	-0 (1)	RC BASIN C	ODE .	DAY E   MD	YR
-	2	M 10 12	17 18	24 29	26		30 31			47
L		Most	OG OF OVERBURDE		OCK MA				DEP	TH - FEET
	ENERAL COLOUR	COMMON NATERIAL	OTHER M	ATERIALS			ENERAL DESC	RIPTION	FROM	10
+!	)rown	10/5011	Fill		<del>-   ,</del>	005	2			(-2)
H	<u> </u>	Horagan	50000			Da-1	ac 1			3 1/
ť	5 ey	Limestone	Gravel		/	1000	red		34	8-
1	rey	LIMESTONE		- 4.00-4-0-0	-		7 6 0			
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	<u> </u>	<del> </del>								
$\vdash$						······································				
-	_						· · · · · · · · · · · · · · · · · · ·			
	31		<u> </u> 	11.1.1	1	<del>                                     </del>	.		11	<u>                                     </u>
_	12 111					<u> </u>	النال	<u> </u>	] [	
Ľ	z 10 41 WAT	TER RECORD	51 CASING &	OPEN HOLE	RECOR	D Z	SIZE ST OF OPER	NING \$1-	45 93 DIAMETER 54-38	75 80 LENGTH 38-40
	ATER FOUND AT - FEET	KIND OF WATER	INSIDE DIAM MATERIAL INCHES	THICKNESS INCHES F	DEPTH FE	CB CB	MATERIAL AND	TYPE	DEPTH TO TO OF SCREEN	
. [_	13 · 8	FRESH 3 SULPHUR SALTE 6 GAS	1 STEEL 2 GALVANIZED	155	. )	3.16				FEET
	ت * ا	FRESH 3 JSULPHUR 19 4 MINERALS .	6 7 3 CONCRETE 4 COPEN HOLE 5 CPLASTIC	1000		3 / 6	P	FEET T	& SEALING REC	CORD
	20-23   □	FRESH 3 SULPHUR 24 4 MINERALS SALTY 6 GAS	1 GSTEEL 2 GALVANIZED 3 GCONCRETE 4 TOPEN HOLE	3	4 6	~   <u> </u>	FROM	10 MAT		PACKER ETC I
		FRESH 3 SULPHUR 29 4 MINERALS SALTY 6 GAS	22-25	25		27-30	2 10-13 <u>3</u>	22-25	ay Bens	eal)
		FRESH 3 SULPHUR 34 10 4 MINERALS SALTY 6 GAS	2 GALVANIZED 3 GONCRETE 4 GOPEN HOLE 5 GPLASTIC	-			26-29	30-33 80		
5	PUMPING TEST NET		E IN-14 DURATION OF		···········		LOCA	TION OF	WELL	
ľ.	I PUMP	WATER LEVEL 25	GPM 1 - 1 H	OVAS ONE MINS		IN DIAGRAM		·	OF WELL FROM ROAS	D AND
1557	LEVEL	END OF WATER L PUMPING 22-24 15 HINUTES	EVELS DURING 2 X	RECOVERY		LOT LINE	INDICATE N	IORTH BY ARRO	bw.	1
l e	PEET		ET Z FEET	2-34 35-37 FEET   OFEET		- 1				///
DITABLE	IF FLORING. GIVE HATE	SPM POMPUNIARE		P OF TEST 42		- 17	/		ı	
	RECOMMENDED PUR	AP TYPE RECOMMENDED		46-49 6 GPM				H	leadling	Rd
L	10-53	***	<del>5 )</del>	(0)					4	<b>-</b>
	FINAL	WATER SUPPLY Z OBSERVATION WEL	S ABANDONED, INS			- 4		<del></del>	9	•
	STATUS OF WELL	3   TEST HOLE 4   RECHARGE WELL	7 () UNFINISHED (i) DEWATERING			- / /			100	
	WATER	DOMESTIC TO STOCK	5 D- COMMERCIAL  MUNICIPAL				- /4	nile	-> *	
	USE	IRRIGATION INDUSTRIAL OTHER	PUBLIC SUPPLY COOLING, OR AIR CON							
-		57 CABLE TOOL	• □ BORING							
	METHOD OF	2   ROTARY (CONVENT 3   ROTARY (REVERSE	TIONAL) 7 🗍 DIAMONI EI - # 🗍 JETTING	•		MY	nnell,	Ave		
C	ONSTRUCTIO	N 4 12 ROTARY (AIR) 5 AIR PERCUSSION	9 DRIVING	OTHER	ORILLE	S REMARKS			14	19795
	HAME OF WELL O	SLER Lt	WEL LIC L	L CONTRACTOR'S	SOU SOU		A 6	0 9	MAR 02 1	995
ONTOACTIVO	ADDRESS	. //	- 1/1	00'		OF INSPECTION	<u> </u>	HSPECTOR	IIIN V.6 k	
	NAME OF WEL	L TECHNICIAN	WE LIC	LL TECHNICIAN'S ENCE NUMBER	S HEN	AHKS	–	J		
	SIGNATURE OF	TECHNICIAN CONTRACTOR	SUBMISSION DATE	-0370	OFFICE			į		
L	100000000000000000000000000000000000000	OF THE ENVIRON	DAY MO	YR	ō		· · · · · · · · · · · · · · · · · · ·		FORM NO. OSO	6 (11/86) FORM 9
	na incis i WV									_ ,

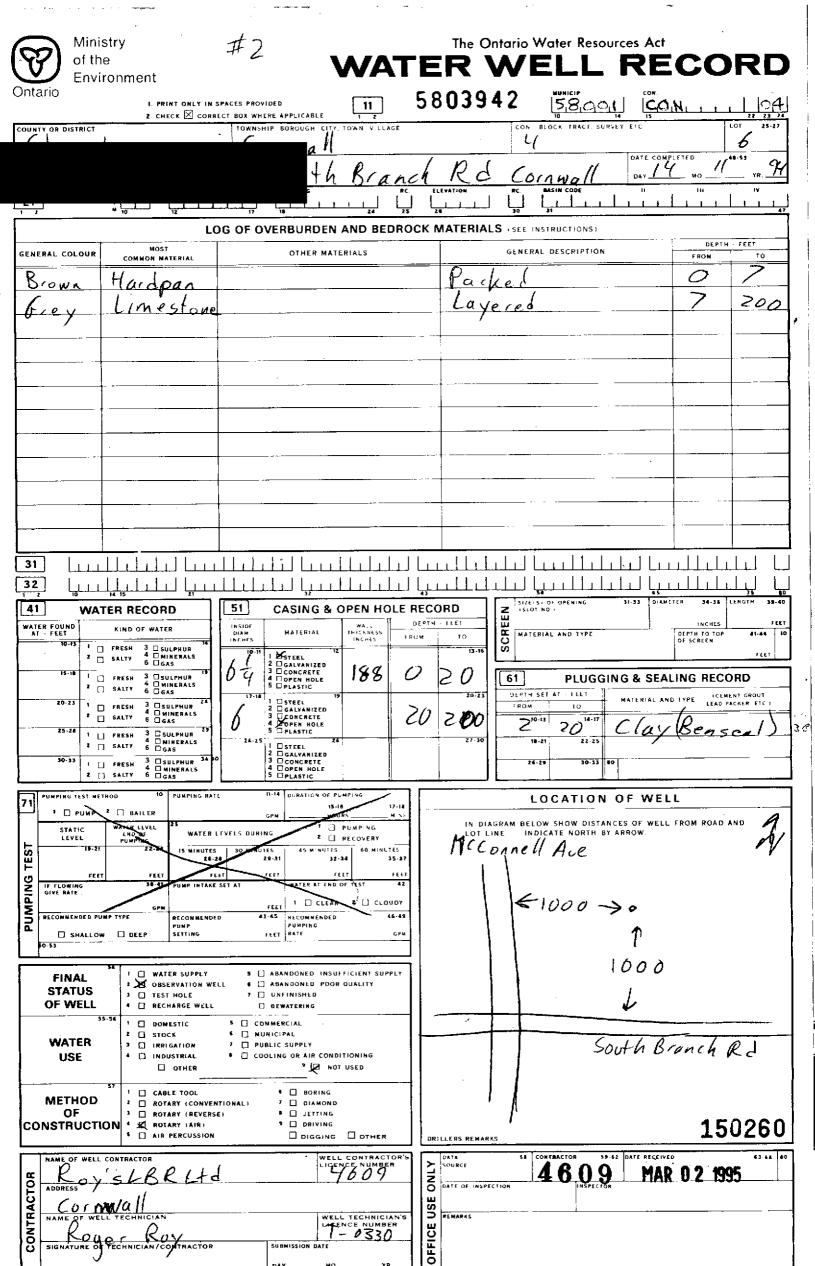
	INLY IN SPACES PROVIDED  OF CORRECT BOX WHERE APPLICABLE	11	5803944	158001	CON 194
COUNTY OR DISTRICT	TOWNSHIP BOROUGH CITY	TOWN, VILLAGE	CON	BLOCK TRACT, SURVEY ETC	LOT 25-27
	+6	Branch	Rd Cornu	//	r 15 mo 1 vr 74
1 2 M 10 12		**************************************	ELEVATION RC	BASIN CODE	, , , , , , , , , , , , , , , , , , ,
1 2 10 12	LOG OF OVERBURDEN	AND BEDRO	CK MATERIALS (SEE		
GENERAL COLOUR COMMON MATERI	AL OTHER MAT	ERIALS	GENE	RAL DESCRIPTION	DEPTH FEET FROM TO
Brown Topsoil			Loose		2 17
Brown Hardpa	n Stones		rachea	<u>-</u>	17 200
Grey Linest	) <i>t</i>		100,9000	· · · · · · · · · · · · · · · · · · ·	
		······			
				· .	
				·	
				·	
31					
32				54 F. S. OF OPENING 31-33	65 75 80 DIAMETER 34-38 LENGTH 39-40
WATER RECORD	INSIDE	OPEN HOLE	DEPTH - FEET	OT NO I	INCHUS FEET
10-13   FRESH 3   SULPH	LE 1 TEEL	THICKNESS 41	13-16 OS WA	TERIAL AND TYPE	DEPIH TO TOP 41-44 30 OF SCREEN
15-10 I FRESH 3 SULPH		188 C			SEALING RECORD
20-23 1 FRESH 3 SULPH 2 SALTY 6 GAS 2 GAS	ALS 3 DCONCRETE	2	1 2 0 A FROM	10	CIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)
25-28 1 FRESH 3 SULFH 2 SALTY 6 GAS	ALS Z4-Z5 I STEEL			10-13 20 10-17 C/W	(Bensea)/
30-33 1 FRESH 3 SULPH 4 MINER 2 SALTY 6 GAS	UR 34 50 2 3 □ GALVANIZED 3 □ CONCRETE 4 □ OPEN HOLE 5 □ PLASTIC			26-29 30-33 80	
71	IPING RATE 11-14 DURATION OF P	17-19		LOCATION OF	WELL
STATIC WATTLEVEL LEVEL FAND ON LEVEL PUMPING		PUMPING RECOVERY	IN DIAGRAM BE	LOW SHOW DISTANCES OF	WELL FROM ROAD AND
1 - L	MINUTES 30 MINUTES 45 NINUTES 25-31 32	60 MINUTES -34 35-37	McConn	NOICATE NORTH BY ARROW	18
	IP INTARE SET WATER AL END				
Z    PU	OMMENDED 43-45 RECOMMENDED	2 CLOUDY	1 //		
SHALLOW DEEP SET	TIMG FEET RATE	<u> </u>		-1000 -	,
FINAL STATUS	TION WELL ABANDONED POOF			-1000 <del>-&gt;</del>	0'
OF WELL 4   RECHARG	E WELL DEWATERING				
WATER CHARGATI	¶ ☐ MENICIPAL ON 7 ☐ PUBLIC SUPPLY			South B	1 01
USE 4 INDUSTR	4		1	- OUTH D	lunch Kd
	(CONVENTIONAL) 7 🔲 DIAMOND				
OF PROTARY CONSTRUCTION CONSTRU	(AIR) 9 DRIVING	OTHER	DRILLERS REMARKS		150258
NAME OF WELL CONTRACTOR	LIÇE	L CONTRACTOR'S		4609 CATE	MAR 0 2 1995
ADDRESS  OF N Wall NAME OF WELL TECHNICIAN  ROUD SIGNATURE OF TECHNICIAN/CONTI	70   0	160°)	DATE OF INSPECTION	INSPECTOR	110N V 6 1333
NAME OF WELL TECHNICIAN		L TECHNICIAN'S	S REMARKS	<u>, , , , , , , , , , , , , , , , , , , </u>	
SIGNATURE OF SECHNICIAN CONTI		<i>- 0</i> 330	OFFICE		
MINISTRY OF THE ENV	IRONMENT COPY	YR			FORM NO. 0506 (11/86) FORM 9

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#3

# The Ontario Water Resources Act WATER WELL RECORD

Ontario	ironment	<b>L</b>	5803943 SUNNICIP CON. 5,8,00,1 CON.
COUNTY OR DISTRICT	Z. CHECK [A] CONH	TOWNSHIP BOROUGH CITY, TOWN VILLAS	CON BLOCK TRACT, SURVEY CTC
		<u>a   (</u>	DATE COMPLETED 48-53
		h Branch	RC ELEVATION RC BASH CODE II III IV
1 2	10 12	17 18 24	25 28 30 31 47
	L(	OG OF OVERBURDEN AND BED	GENERAL DESCRIPTION
GENERAL COLOUR	COMMON NATERIAL		Packed 0 13
Brown	Hardpan	Stones	Packer 13 37
Gier	Linestone	Gravel	Lavered 37 220
Vicy	C //8. JIUNE		
	-		
	<u> </u>		
31			
32	14 15		43 54 65 25 80 80 SIZE. S) OF OPENING 31-33 DIAMCTER 34-38 LENGTH 39-40
WATER FOUND	TER RECORD	51 CASING & OPEN HO	LE RECORD Z (SLOT NO ) INCHES FEET
AT - FEET	FRESH 3 DSULPHUR	DIAM MATERIAL THICKNESS INCHES	FROM TO MATERIAL AND TYPE SCREEN 41-64 10.
15-18 1	FRESH 3 SULPHUR	6 4 GALVANIZED 3 GOONGRETE 4 DOPEN HOLE 5 DELASTIC	O 42 61 PLUGGING & SEALING RECORD
20-23 5	FRESH 3 SULPHUR	17-18 1 DSTEEL	20-23 ULPTH SET AT - FLET MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETG.)
25-28 1	FRESH 3 SULPHUR 29	Z6-25 Z6	42 220 2 10-13 4 2 Clay Benseal)
10.13	SALTY 6 □GAS	D STEEL  2 GALVANIZED  3 GONCRETE  4 GOPEN HOLE	26-29 30-33 40
PUMPING TEST MA	SALTY 6 GAS	5 PLASTIC	
[71] <b>}</b>	2   BAILER	GPMNOURS	LOCATION OF WELL  IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND
STATIC LEVEL	PURPLUG	LEVELS DURING C RECOVERY  1 30 WINUTES 45 MINUTES 60 MINUTES	LOT LINE INDICATE NORTH BY ARROW.
TEST G-1	26-: FEET	28 32-34 3	Say M Connell Aug
GIVE RATE  RECONMENDED F	GPH GPH	SET AT WATER AT END OF TEST	1000 )
RECONHENDED P		PUMPING	CPM T
0.53			72 mile
FINAL	WATER SUPPLY OBSERVATION WE		
OF WELL	3 TEST HOLE 4 RECHARGE WELL	<del></del> <del></del> _	South Branch Rd
WATER	1 DOMESTIC 2 STOCK 3 DIRRIGATION	CONNERCIAL  MUNICIPAL  DUBLIC SUPPLY	
USE	•   INDUSTRIAL   OTHER	COOLING OR AIR CONDITIONING  SUE NOT USED	
METHOD	CABLE TOOL CABLE TOOL CONVE	6 ☐ BORING NTIONAL) 7 ☐ DIAMOND	<del> </del>
OF CONSTRUCT	ION 4 1 ROTARY (REVERS	E) • DIETTING • DRIVING	150259
	5 AIR PERCUSSION	WELL CONTRACTO	DR'S DATA 58 CONTRACTOR 59-62 DATE RECEIVED 63-64 80
	SLBR L+	. I LOCKER NUMBER	
Coca	1 wg //		<u> </u>
NAME OF WE	er Ros	WELL TECHNICIA	
SIGNATURE O	F TECHNICIAN CONTRACTOR	SUBMISSION DATE	O PFICE OF
	OF THE ENVIRON		FORM NO. 0506 (11/86) FORM 9



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FORM NO. 0506 (117/86) FORM 9



# The Ontario Water Resources Act WATER WELL RECORD

Ontario	I. PRINT ONLY IN 2. CHECK 🗵 CORR	ECT BOX WHERE APPLICABLE	11	58039	14 NUNICIP. 5,8,0	oń <u>"Go</u> n	
COUNTY OR DISTRICT	4	TOWNSHIP, BOROLGH EI	// TOWN VILLAGE		CON BLOCK THACE	SURVEY ETC	Lot 21-27
		th	Branch	Rd C	0/NWall	DAY MG	11 vr 94
1 2	10 12	HING 1 1		RC ELEVATION	PC BASIN CODE		14 14 E
	LC	· · · · · · · · · · · · · · · · · · ·			ALS (SEE INSTRUCTIONS	·	47
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MA	ATERIALS		GENERAL DESCRIPTION	ON FR	DEPTH - FEET
Brown	10050,1			Loo	çe		<u> </u>
Brown	Clay			Den	Se	2	- + -
Coma	liandian	·		Pack	e d		> 15 5 200
L	C 1 19 0 5 10 11	<u></u>		Loy	rered		200
		a von	·				
					····		
			<u> </u>				1
							-
31				البلبينا	عللتنا ليلا	البنيا ليليا	
32 WAT	ER RECORD	51 CASING &	OPEN UCLE	BECOSE T	SIZE ST OF OPENING	31-33 DIAME ER 3	75 40 4-38 LENGTH 39-40
WATER FOUND AT - FEET	KIND OF WATER	INSIDE MATERIAL	OPEN HOLE	DEPTH - FEET	S (STØ) NO .	l No	CHES FEET
	FRESH 3 SULPHUR SALTY 4 MINERALS 6 GAS	10-11 1X STEEL 2 GALVANIZED	INCHES	13-16	MATERIAL AND TYPE	DEPTH TO OF SCREE	
15-18 I	FRESH 3 DSULPHUR 19	13 CONCRETE 4 COPEN HOLE 5 CPLASTIC	188 0	20	61 PLUGO	GING & SEALING R	RECORD
20-23 1 1 2	FRESH 3 OSULPHUR Z4	GALVANIZED  GALVANIZED  GOVERTE  GOVERN HOLE	19	20-23	DEPTH SET AT FEET FROM 10	MATERIAL AND TYPE	LCEMENT GROUT LEAD PACKER, ETC )
25-28 1	FRESH 3 SULPHUR 29	5 DPLASTIC	• •	200	0 20 22-25	Clay (Re	nseal)
30-33	FRESH 3 SULPHUR 34 10	2 □GALVANIZED 3 □CONCRETE 4 □OPEN HOLE 5 □PLASTIC			24-29 30-33	20	
71 PUMPING TEST METHO		11-14 GURATION OF F			LOCATION	OF WELL	
STATIC LEVEL	WATER LEVEL 25 END OF WATER LE		UNS VINS	IN DIA	GRAM BELOW SHOW DISTA	ANCES OF WELL FROM RE	OAD AND
T PS 1	POMPING 12-24 IS MINUTES 26-28	30 NINUTES 45 M NUTES	RECOVERY 60 MINUTES -34 35-37		on nell	ST ARROW.	10
	FEET SET STATE SE		OF TEST #2	Meca	onnell		
O IF FLOWING	I HECOMMENDED	43-45 RECOMMENDED	2 □ CLOUBY	' A	ue i		
SHALLOW	DEEP SETTING	PHMPING PEET RATE	GPN		1 /2 m	ile -	
FINAL	1 WATER SUFFEET	S ABANDONED INSU					7
STATUS OF WELL	2 OBSERVATION WELL 3 TEST HOLE 4 RECHARGE WELL	<ul> <li>ABANDONED POOR</li> <li>UNFINISHED</li> <li>DEWATERING</li> </ul>	P TIJAUD !				1000
35-51	1 DOMESTIC	5 GONMERCIAL 6 MUNICIPAL				<u> </u>	J
WATER USE		7 PUBLIC SUPPLY  COOLING OR AIR COND  NOT				South Bran	ich Rd
METUOD 37		◆ □ BORING		-			
METHOD OF CONSTRUCTION	POTARY (CONVENTION OF A POTARY (REVERSE)						
	3 AIR PERCUSSION	DIGGING	ОТНЕЯ	DRILLERS REMARKS		1	50264
ROY'S	LBRL+d	LICE	CONTRACTOR'S	DATA SOURCE DATE OF INSPEC	4609	MAR 0.2	1995
ADDRESS  ADDRESS  LOCAL  NAME OF WELL  ROLL  SIGNATURE OF TE	vall_			SE	TION INSPECTO	R 7 77 77 W	
NAME OF WELL	( ROY	ug t,	TECHNICIAN'S NCE NUMBER				
O SIGNATURE OF TE	CHNICIAN/CENTRACTOR	SUBMISSION DATE  DAYNO	YR	OFFICE			
MINISTRY OF	F THE ENVIRONMI					EORM NO. O	506 (17/86) FORM 9



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COUNTY OR DISTRICT	4	TOWNSHIP BURGUGH CITY, TOWN VILLAGE	LON BLOCK, TRACT SURVEY ETC	7				
		PWITE	_	OMPLETED 41-33 94				
		309 P//	ELEVATION RC BASIN CODE	101 IV				
	W 10 12	17 18 24 25	26 30 31	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
	LO	G OF OVERBURDEN AND BEDROCH	MATERIALS (SEE INSTRUCTIONS)	DEPTH - FEET				
GENERAL COLOUR	NOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	FROM TO				
BROWN	FILL	STONES	1005	0 5				
11/11	THARD PAN		LUOSE PACKED PACKED	5 10				
GREY	TILL	STONES	TACKED _	10 56				
11 "			LAYERED	56 75				
*		·						
21 1	<u> </u>	<u>                                     </u>						
31   1	<del>▗▗▗▗▗▗</del> ▗ <u>╏</u> ┆ _╏ ┆╷┆╷┆┆							
1 2 50	ATER RECORD	51 CASING & OPEN HOLE RE	ECORD SIZES OF OPENING 31-33	DIAMETER 34-38 LENGTH 39-40				
WATER FOUND AT - FEET	KIND OF WATER	INSIDE WALL DE DIAN MATERIAL THICKNESS FROM	I DE LOATEGIAL AND TYPE					
	FRESH 3 SULPHUR SALTY 6 GAS	10-11 DISTEEL 12 D GALVANIZED	13-16	FEET				
	FRESH 3 SULPHUR 4 MINERALS	64 1 CONCRETE 188 0		SEALING RECORD				
20-23 1	FRESH 3 SULPHUR	1 DSTEEL 2 DSALVANIZED	ZO-Z3 DEPTH SET AT FEET MATERIAL AND TYPE ICEMENT GROUT IEAD PACKER ETC.]					
	G FRESH 3 GSULPHUR 29	6 AD CONCRETE STORY AND A STOR	7 75 10-13 14-17 127-25 127-25					
1	SALTY 6 GAS	1 STEEL 2 GALVANIZED 3 GCONCRETE	26-28 3U-33 BQ					
	SALTY 6 GAS	3 CONCRETE 4 OPEN HOLE 5 OPLASTIC						
71 PUMPING TEST N	TETHOD 10 PUMPING RAT	E 11-14 DURATION OF PUMPING  15-16 17-18  O GPM	LOCATION OF W					
STATIC LEVEL	WATER LEVEL 25	1 G PUMPING LEVELS DURING 2 G RECOVERY	IN DIAGRAM BELOW SHOW DISTANCES OF V LOT LINE — INDICATE NORTH BU ARROW.	WELL FROM ROAD AND				
1EST / 2								
9 /2 FE	50-45 PUMP INTAKE	SET AT WATER AT END OF TEST 42	$\mathcal{F}$					
FE FLOWING GIVE RATE	GPM	75 FEET CLEAR CLOUDY						
RECOMMENDED	PILMP	65 FEET RATE 10 GPM						
0-53			70'	11				
FINAL STATUS	water supply OBSERVATION WI		e 400°	11				
OF WELL	4   RECHARGE WELL			11				
WATER	DOMESTIC 2 D STOCK	5 COMMERCIAL  6 MUNICIPAL		11				
USE	3   IRRIGATION 4   INDUSTRIAL   OTHER	PUBLIC SUPPLY COOLING OR AIR CONDITIONING  NOT USED						
	57 CABLE TOOL	6 ☐ BORING						
METHOD OF	Z C ROTARY (CONVE	NTIONAL) ? ☐ DIAMOND SE) # ☐ JETTING		11				
CONSTRUC		9 DRIVING	DRILLERS REMARKS	138538				
NAME OD WE	LL CONTRACTOR	WELL CONTRACTOR'S	DATA SOURCE S9 CONTRACTOR OF 62 DATE R	AUG 2 4 1994				
Q ADDRESS	1.5 F 12 16	LTD LICENCE NUMBER	O LATE OF INSPECTION INSPECTOR	1.00 & 1 100 I				
NAME OF W	OPW.	WELL TECHNICIAN'S	M CO RENAPES					
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	JA ROY	LICENCE NOBER	OFFICE					
O RIGNATURE	OF TECHNICIAN CONTRACTOR	SUBMISSION DATE  DAYMOYR,	00					
MINISTR	Y OF THE ENVIRON	<del></del>		FORM NO. 0506 (11/86) FORM				

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	1. PRINT ONLY IN SPACE 2. CHECK 🗵 CORRECT B	1 • 1	~,58	303778	<u>5800U</u>	CON	<u>Lia</u>
COUNTY OR DISTRICT		TOWNSHIP, BOROUGH CITY TOWN VILLAG	E .	CON	BLOCK, (RACT, SURVEY ET	C	LOT 23-27
		nwall			1 0.0	ATE COMPLETED .	19.53
		Cornwall				AY 15 MO JU	
1 2 M 10	] [ ] ] ]	H:NG	#L EL	EVATION AT	MASIN CODE	1 1 1 1 1 1	ليستسيا
	LOG	OF OVERBURDEN AND BED					
	MOST IN MATERIAL	OTHER MATERIALS		GENERA	AL DESCRIPTION	DEPTH FROM	FEET TO
GCOV GIO	10/	F:(()		Park	$\mathcal{J}$		7
Grex Hal	doan			Packer	1	7	3>
604 10	nostane		-	Lavore	2	>>	80
10,67							
							_
				: 			
31	السنا ليا		نبا لِن				لا لنا
32					54 - OF OPENING 31-33	65	75 80 LENGTH 19:40
WATER FOUND KIND OF		SIDE WALL	E RECO	PRU Z ISLOT		INCHES	FEET
AT - FEET STREET 3	□ SULPHUR	CHES MATERIAL THICKNESS A CHES INCHES	гвем		RIAL AND TYPE	DEPTH TO TOP OF SUREEN	gi a 4 10
	□ MINERALS □ GAS □ SULPHUR	I STEEL  2 G GALVANIZED  3 G CONCRETE	()	27	21122112	0541100 0500	FEET
SALTY 5	GAS	4 DOPEN HOLE 5 DRIASTIC			ET AT - FEET		NT GROUT
FRESH 4	SULPHUR "   MINERALS   GAS	2 DGALVANIZED	37	FROM TO-	10	I LEAD PA	CKER ETC
1 1 4	SULPHUR 29 (	24-25 26 26 1 □ STEEL	J (	27770	$\frac{1}{21}$ $\frac{3}{2}$ $\frac{1}{22}$ $\frac{1}{22}$ $\frac{1}{22}$	X Benja	1178 H
30-33 1 FRESH 4	SULPHUR 34 50 GAS	2 GALVANIZED 3 CONCRETE 4 GAPEN HALE 5 GPLASTIC		26	29 30-33 80		
PUMPING TEST METHOD	IC PUMPING NATE	0.54 DURATION OF PUMPING	7 🗂		OCATION OF	WELL	•
71 1 1 BAILE		(   15-16   OO   17   HOURS   OO   17   HOURS	18 NS	· · · · · · · · · · · · · · · · · · ·	OW SHOW DISTANCES OF		NO 🕖
STATIC WATER LEVE LEVEL FND OF PUMPING	WATER LEVEL!	S DURING  2 SQ RECOVERY  O VINUTES   45 M NUTES   60 MINUTES	_	LOT LINE IND	CATE NORTH BY ARROY		NI I
(3   GO	) 15 MINUTES 3		<u>''</u>    M	clonnell			IV
	E-41 PUMP INTAKE SET AL	WATER AT END OF TEST	~]  <i> </i>	que.	In		. (
RECOMMENDED PUMP TYPE	RECOMMENDED	FEET 1 CLEAR 2 CLOUD 43-45 RECOMMENDED 46			7	rile ~	<b>≯</b>
SHALLOW TO DEEP	PUMP SETTING 70	PUMPING 15 G	PM	1/11	maile		
5:::4	WATER SUPPLY	5 ABANDONED, INSUFFICIENT SUPPL	<del>,</del>				
STATUS ,	OBSERVATION WELL	ABANDONED POOR QUALITY     UNFINISHED					
55.56	DOMESTIC 5	☐ DEWATERING  SCOMMERCIAL	-				_]
, , , , , , , , , , , , , , , , , , ,	STOCK 6	MUNICIPAL DUBLIC SUPPLY		1 South 1	Branch	<u>d</u>	
USE ' a	INDUSTRIAL	COOLING OR AIR CONDITIONING  9 NOT USED		1 '	-		
I AACTUAR   -	CABLE TOOL	6   BORING	$\dashv    $			D (	by
OF 3 -	ROTARY (CONVENTIONA ROTARY (REVERSE) ROTARY (AIR)	LL) ⁷ DIAMOND DETTING  DRIVING					ary Ro
	AIR PERCUSSION	DIGGING OTHER	DRIL	LERS REMARKS		13	0212
NAME OF WELL CONTRACTOR	DO I	WELL CONTRACTO	בׁן נֹי	OATA 58 CO	4609	0CT 0 4 199	9
NAME OF WELL TECHNIC	DL L	10 1400)	No	DATE OF INSPECTION	INSPECTOR	<u>ULI UT 133</u>	<u>.</u>
ME NAME OF WELL TECHNIC	a/l	WELL TECHNICIAN	S SE	REMAPKS .	1		
S SIGNATURE ON TECHNICIAN	V/CONTRACTOR	SUBMISSION DATE	FFICE				
3, 2011		DAY NO YR	110				
MINISTRY OF THE	- ENVIRONMEN	•				FORM NO. 0506 (1	11/86) FORM 9



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The Ontario Water Resources Act

Ontario	1. PRINT ONLY IN	SPACES PROVIDED	11	58	0371	36 <b>j</b>	<u> </u>	CON.	<u> </u>
COUNTY OR DISTRICT	7. CHECK (25) CORR	TOWNSHIP: BOHOUGH CIT	1/			CON BLOCK	TRACT, SURVEY ETC		LOT 21-27
		WA	:*/ /						#-53 / 92
		<u>/</u> .	hongs	24 - 7 RC ELEV	ATION	RC BASIN		х <u>62</u> мо <u>6</u>	6 vr 93
1 2	M 10 12	17 16	24	25 26		30 31			
		OG OF OVERBURDEN	AND BEDF	ROCK M.	ATERIAL		<del></del>	DEPTH	I - FEET
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MA	TERIALS			GENERAL DES	CRIPTION	FROM	70
Brown	Handpan	13 oulde	<u>es</u>			HAI	<u>^4</u>	0	10
Grey	HArdpan	Boulder	5 · 60	avet		MAN	4	70	58
Grey	11mestone	Rock		··· <del>·</del> i		por	ous	58	75
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			.3			<u>,                                    </u>			
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31   11		<u> </u>	<u> </u>		<u> </u>		<del>┖┺</del> ┺┺┸ ┇╻╏╻╏╻		
3 Z 10	TER RECORD	51 CASING &	OPEN HOL	E RECOF	RD	54 SI7E-5+ OF QP	ENING 31-33	DIAMETER 34-38	75 80 LENGTH 39-40
WATER FOUND AT - FEET	KIND OF WATER	INSIDE DIAM MATERIAL INCHES	WA THICANESS INCHES	DEPTH -	10	MATERIAL AN	D TYPE	DEPTH TO TOP OF SCHEEN	#1-#4 30
1 / // 1	SALTY 0 GAS	10-11 1-BSTEEL  // 2 DGALYANIZED	12	<i>(</i> 0	13.16	)Š			1334
15-14 ! □	FRESH 3 DSULPHUN 19 4 DMINERALS SALTY 6 DGAS	3 CONCRETE 4 OPEN HOLE 5 PLASTIC		0	) 0 	61 DEPTH SET AT		SEALING RECO	
	FRESH 3 DSULPHUR 24 1 SALTY 6 DGAS	1 - 1	19	58	75	FROM 1	MATES	RALAND TYPE LIND F	PACKER ETC
25-26 1	FRESH 3 SULPHUR 29    SALTY 6 GAS	4 Beren Hole 5 PLASTIC  72-25	:6	-	27-10	10-21	22-25	······································	w
30-33 1	FRESH 3 D SULPHUR 34 B	Q GALYANIZED 3 □ CONCRETE 4 □ OPEN HOLE				26-29	30-33 ,80	<u></u>	
PUMPING TEST MET		5 PLASTIC	PUMP NG	7		1004	TION OF	WELL	
I	Z □ BAILER		-16		IN DIAG			WELL FROM ROAD	AND
STATIC LEVEL	END OF WATER PUMPING  #2-24 15 MINUTES	LEVELS DURING 7 []	HECOVERY		LOT LU	NE INDICATE	NORTH BY ARROW	v. }	
1831 8 mm		18 18	75 TEET	ετ			,		
IF FLOWING GIVE RATE RECOMMENDED PU	38-41 PUMP INTAKE	SET AT WATER AT END		Y ]	•	1	Μ		
RECOMMENDED PU	PUMP	ED 43-45 RECOMMENDED	10 0	11				8	
50-53	DEED SELLING	70 FEET HATE		]	//	01.	01	00	
FINAL	1 WATER SUPPLY 2 OBSERVATION WE	5 ABANDONED, INST			_#	nd line	1.d.	+~	
STATUS OF WELL	TEST HOLE  TEST HOLE  RECHARGE WELL	7 UNFINISHED  DEWATERING				7	00′	8	
	5.56 DOMESTIC	5 COMMERCIAL 6 MUNICIPAL				<i></i>		۲	
WATER USE	3   IRRIGATION 4   INDUSTRIAL	7 PUBLIC SUPPLY  9 COOLING OR AIR CON						*	
`	OTHER  57 CABLÉE TOOL	9 □ N(	OT USE0	$\dashv$		,	<i>~</i> .	E	
METHOD OF	ROTARY (CONVE	NTIONAL) 7 🗖 DIAMONI						1	
CONSTRUCTION	ON 4 PROTARY (AIR) 5 AIR PERCUSSION	P DRIVING		DRILL	ERS REMARKS	S	<u> </u>	12	7050
NAME OF WELL	CONTRACTOR	1111/1/ 7 WELL	L CONTRACTOR	(*) 	ATA OURCE	S8 CONTRACT	OR 52 0ATE		63-61 40
NAME OF WELL	AIDIA	Tall.	1717	E ONLY	ATE OF INSPEC	TION 4	INSPECTOR	<u>Jun 0 9 19</u> 9	<b>33</b>
HAME OF WEL	L TECHNICIAN		LL TECHNICIAN		E MAPKS				
S JA CA	ULS A 44 MM	SUBMISSION DATE	264	FFICE					
	~/_	DAY 02 NO	06 YR 9					FORM NO. 0506	<u></u>



# The Ontario Water Resources Act WATER WELL RECORD

Onta	ario	1. PRINT ONLY IN SPACE. CHECK OCHRECT	CES PROVIDED  BOX WHERE APPLICABLE	11	58036	89	19800	<u>[</u> ] [C ₁ O ₁ 1	<u>(, , , </u>	ليهفيا
	TY OR DISTRICT		TOWNSHIP BOROUGH CITY	DWN. VILLAGE		CON E	BLUEK, TRACT, SUR	VEY ETC		2 25-27
			+4 1	1 (	1.1			DATE COMPLE	د .	····· 72
			IING	<u> </u>	ELEVATION 1	IFC.	MASIN CODE	U Y Y	MO	1 17
1 2	r! N	100	OF OVERBURDEN A	ND BEDRO	CK MATERIAL	S (SEE IN	STRUCTIONS)			
GEN	ERAL COLOUR	MOST	OTHER MATE		CKWAZEMAL		L DESCRIPTION		DEPTH	- FEET
R	) 1	COMMON NATERIAL	54.10		<del>                                      </del>	Ke d	<u> </u>		()	12
6	YOWN!	Hardnan	6-10-10-5		Pa	1/10			12	27
6	100 1	MESTERE	0 7 8 0 0 1		La	1/6	red		27	80
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31		لبيا ليليا			ليللينا	ا لىك	باللليب	بننا ليا		
32	يلسيا [				لمللسيا	إلبل	لللبي	31-33 D-AMETE	بليلل	
41 WAT	ER FOUND		51 CASING & O	WA.,	RECORD	Z (Stor)	OF OPENING NO 1	D-AMETE	R 14-38	LENGTH <b>39-40</b>
	10-13 1 K FI	RESH 3 SULPHUR 34	DIAY MATERIAL NCHES 12	THICKNESS FIR	0M 10		IAL AND TYPE		DEPTH TO TOP DE SCREEN	41-44 10 FEET
	/ S   2   5	6 □ GAS	2 GALVANIZED 3 GOOKRETE 4 DOPEN HOLE	188	0 2 2	61	PLUGGI	NG & SEALI	NG RECO	
-	20-23 1 D F	ALTY & GAS	17-16 1 STEEL 19		20-23		ET AT - FEET -	MATERIAL AND 1	ICENI	ENT GROUT ACKER, ETC 1
-	25-20 1 D F	ALTY 6 GAS	2 DE GALVANIZED 3 DE CONCRETE 4 SOPEN HOLE 5 PLASTIC	2	7 280	<b>2</b> 10.1	+	(= (= ) (	Benl	
	2 🗆 5	ALTY 6 GAS	24-25 1 STEEL 26 2 GALVANIZED 3 CONCRETE		27-30	10 -	21 2E-25			
L	20-23 ,	"" A 🗆 MINERALS 📗	4 DOPEN HOLE 5 PLASTIC			26-2	* 10-33 *			
71	PUMPING TEST METHOD		16-14 DURATION OF PUA 15-16 GPMHOUR	17. 37.10		L	OCATION	OF WELL		
1.		TATER LEVEL 23 END OF WATER LEVE PUMPING	us During \$ 5	UMPING SECOVERY	IN DIA LOT LI		W SHOW DISTAN CATE NORTH BY		ROM ROAD	yo
TEST	19-21	28-24 15 MINUTES 28-28	30 MINUTES 45 MINUTES	: / <del>&lt;</del>					- / /	
SE	IF FLOWING.	SO-41 PUMP INTAKE SET					D	२ ।	16	_ /V
PUMPING	RECOMMENDED PUMP T		43-45 RECOMMENDED	2 X CLOUDY			•	Boundur	11	q
· i	SHALLOW J	DEEP SETTING	FEET RATE	C GPM						
	FINAL	1 WATER SUPPLY	S ABANDONED, INSUFF					42 1	100	_
	STATUS OF WELL	2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL	■ □ ABANDONED POOR ( → □ UNFINISHED □ DEWATERING	DUALITY		1	e m	18->	++-	
	55-56	1 DOMESTIC	COMMERCIAL			20	0	· .		
	WATER USE	3   IRRIGATION 1	I □ MUNICIPAL I □ PUBLIC SUPPLY I □ COOLING OR AIR CONDIT	ioning -		<u> </u>			'	
		OTHER	• NOT	USED	South	Broi	nch Rd		• /	
	METHOD OF	1 CABLE TOOL 2 ROTARY (CONVENTION 1 DROTARY (REVERSE)			V *		<del>-</del>	ţ	,	
co	NSTRUCTION		• 🗆 DRIVING	□ OTHER	DRILLERS REMARK	(S			113	3231
	NAME OF WELL COM	ITRACTOR		CONTRACTOR'S	> DATA		1609	MAR	1 1 404	12 (3.41 30
15 E	ADDRESS Y S	TDE LYO	1 46	09	O DATE OF INSPE		4 6 U 9	FIAK	1 1 199	<u> </u>
ONTRACTOR	NAME OF WELL T	ECHNICIAN	WELL	TECHNICIAN'S	S REMARKS					
NO.	SIGNATURE OF TES	ENNICIAN/CONTRACTOR	SUBMISSION DATE	/330	OFFICE					
	7	· · · · · · · · · · · · · · · · · · ·	DAY	YR	P				AA NO GEOR	

Ontario		SPACES PROVIDED RECT BOX WHERE APPLICABLE	11	58036	883	5,8,0,0,1	CON. <u>CON.</u> 15	<u>.                                     </u>
COUNTY OR DISTRICT	V	TOWNSHIP: BOROUGH CITY.	TOWN VILLAGE		5	LOCK THACT, SURVEY E	398	9
		201	1	10	1-01		DATÉ COMPLETED DAY <b>28</b> MO 1	41-53 2 vr 22
<u></u> .	w 10 12 12 12 1	HING		C ELEVATION		BASIN CODE	1 1 1 1 1	
1 2		OG OF OVERBURDEN	AND BEDR	OCK MATERIA	ALS ISEE INS	STRUCTIONS)		
GENERAL COLOUR	WOST COMMON NATERIAL	OTHER MATE	RIALS		GENERAL	DESCRIPTION	DEPT FROM	H - FEET
Brown	Hardasin	Boulder	e s		1	Airl	0	10
Grey	Hardon	11				11	10	55
Grey	Gravel	. //			Lo	ose	سحرى	60
Frey	limestone	lock .	<b>)</b>		HH	ind	60	70
_	-			-			· ·	
		<u> </u>						<u> </u>
31 111			<u> </u>			<u>, , ,                                </u>		
1 2 10	TER RECORD	51 CASING & C	PEN HOLF	BECORD	54 51ŽE (S) 7 - S) OT N	OF OPENING 31-	65 33 DIAMETER 34-18	1 75 <b>40</b>
WATER FOUND AT - FEET	KIND OF WATER	INSIDE MATERIAL	WALL THICKNESS	DEPTH - FEET		AL AND TYPE	1NCHES	FEET
	FRESH 3 SULPHUR SALTY 4 MINERALS 6 GAS	INCHES  10-11  1-BSTEEL  2 - GALVANIZED	INCHES	13-16			OF SCREEN	FEET
15-18 1	FRESH 3 DSULPHUR 4 DNINERALS 5 DGAS	1 / W 13 TONCRETE	1,88 0	0 40	61		& SEALING REC	ORD
	FRESH 3 SULPHUR 24  SALTY 6 GAS	17-16 1		10 70	FROM	10		PACKER, ETC
	FRESH 3 SULPHUR 29 SALTY 6 GAS	4 DPEN HOLE 5 DPLASTIC 24-25 USSEEL		27 10	5 10-12	1 2 00	nt grow	
30-33	FRESH 3 SULPHUR 34 14  FRESH 4 MINERALS  SALTY 6 GAS	2 □ GALVANIZED 3 □ CONCRETE 4 □ OPEN HOLE			26.21	30-33 40		
PUMPING TEST ME		5 DELASTIC	MP:NG	]		CATION OF	WELL	
1 Jump UMP	2 ☐ BAILER WATER LEVEL 25	5 GPN		IN D		······································	OF WELL FROM ROAD	AND
LEVEL	END DF WATER	1 10 MONUTES 1 AS MINUTES	RECOVERY	LOT	LINE INDIC	CATE NORTH BY ARRO	ów.	
25 Z 5		50 10 10 10 10 10 10 10 10 10 10 10 10 10	1 70 m					
IF FLOWING GIVE RATE	SB-AI PUMP INTAKE	マの	2 CLOUDY		Her	ad line	Road	
RECOMMENDED PL	PUMP	D 43-48 RECOMMENDED PUMPING RATE	45-49 GPM			75-1	- CAY	<del></del>
50-53				10/1	ile	<b>y</b>		-
FINAL STATUS	WATER SUPPLY Description we			54	17ex			
OF WELL	3   TEST HOLE 4   RECHARGE WELL	DEWATERING		3				
WATER	DOMESTIC  STOCK  I RRIGATION	5 COMMERCIAL 6 MUNICIPAL 7 PUBLIC SUPPLY		४		•		
USE	INDUSTRIAL OTHER	COOLING OR AIR CONDIT					•	
METHOD	S7   CABLE TOOL	6 BORING TIONAL) 7 DIAMOND		$  \mathcal{H}  $		N		
OF CONSTRUCTI	3 G ROTARY (REVERS			[		1.	10	Eggs
	5 AIR PERCUSSION	DIGGING		DRILLERS REMAI		SE 67 DATE		5992
C Gillos	Bourgeois	/ // // //	CONTRACTOR'S	SOURCE		414	JAN 1 9 19	93
ADDRÉSS S	ALBE	RTONT	-	N	PICTION	INSPECTOR		
ADDRESS  NAME OF WE  SIGNATURE OF	AYMOND	WELL	TECHNICIAN'S					
SIGNATURE OF	TECHNICIAN/CONTRACTOR	SUBMISSION DATE	12 ,92	OFFICE				
	OF THE ENVIRON	· ·	197.2	·			FORM NO. 0506	(11/86) FORM 9

Ministry The Ontario Water Resources Act of the VATER WELL Environment[₹] 5803410 58001 CON 2 CHECK X CORRECT BOX WHERE APPLICABLE COUNTY OR DISTRICT TOWNSHIP. BORDUGH CITY 0192 LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS GENERAL DESCRIPTION GENERAL COLOUR OTHER MATERIALS FROM 8 56 0 Roun フロ 32 CASING & OPEN HOLE RECORD 41 - WATER RECORD 51 WATER FOUND AT - FEET 3 USULPHUR 4 UMINERALS 6 UGAS 1 [] FRESH 2 📋 SALTY 188 56 FRESH 3 SULPHUR 4 MINERALS 6 DGAS PLUGGING & SEALING RECORD 61 20-2 1 | FRESH 3 SULPHUR
4 MINERALS
6 GAS つり t | FRESH 3 USULPHUR 4 UMINERALS 6 UGAS 27.3 I OSTEEL
2 OGALVANIZED
3 OCONCRETE
4 OOPEN HOLE
5 OPLASTIC 3 \$ SULPHUR 4 □ MINERALS 6 □ GAS L 🔲 FRESH SALTY LOCATION OF WELL ்≱ ☐ BAILER IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND INDICATE NORTH BY AR WATER LEVELS DURING # [] RECOVERY 15 MINUTES 0 1 CLEAR COUDY. FEET RECOMMENDED PUMP TYPE 43-45 60 1 ☐ SHALLOW DICEER WATER SUPPLY . ABANDONED, INSUFFICIENT SUPPLY **FINAL** Description well
Test hole
Recharge well ABANDONED POOR QUALITY **STATUS** J UNFINISHED OF WELL ☐ DEWATERING ۱ 🛭 s COMMERCIAL DOMESTIC 2 🗆 STOCK 6 | MUNICIPAL WATER 3 | IRRIGATION ☐ PUBLIC SUPPLY COOLING OR AIR CONDITIONING USE OTHER ▶ □ NOT USED 1 CABLE TODL **₹METHOD** 2 | ROTARY (CONVENTIONAL) 7 DIAMOND ROTARY (REVERSE) JETTING CONSTRUCTION 4 23 TROTARY (AIR) ■ ☐ DRIVING 107912 5 AIR PERCUSSION OTHER DISGING DATE RECEIVED ONLY JUL 1 5 1991 1414 OFFICE USE REMARKS FORM NO 0506 (11/86) FORM 9



Ontar	rio	1. PRINT ONLY IN S	PACES PROVIDED	11	56	3U34L	Jb	<u> </u>		N _L	<u>  0</u> 4
COUNTY	OR DISTRICT	1	TOWNSHIP BOROUGH CI					COA4	Y ETC		LOT 23-27
			r r	xi I		<u> </u>	<u>`</u>	_ 0 // 3	DATE COMPL	~ /	9 YR 9
			72 0			CC	RC BA	SIN CODE		191	,, , , , ,
<u> </u>		M 10 12	G OF OVERBURDE	A AND REDE		MATERIALS	5 (SEE INST				47
CENER	RAL COLOUR	MOST		ATERIALS				DESCRIPTION		DEPTH FROM	- FEET
		COMMON NATERIAL	D 11 0		<u></u>	<del></del>		<u> </u>		<u>ව</u>	55
1 _	مسم	Hardpan	Boulders	<b>&gt;</b>						55	64
1 ~	own_	Bidrock				Ha	cd			69	٩ <u>٥</u>
13	C	0.87.66									
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31	<u>_</u>				عا ل		با لبل				
32	عنيا [	14 15		<u> </u>	43			OF OPENING	3(-33 DIAME)	IER 34-38	75 50 LENGTH 39-40
41	<del></del>	TER RECORD	51 CASING	& OPEN HOL		ORD	Z   151at NG   山	)		1NCHES	FEET
AT	R FOUND FEET	FRESH 3 SULPHUR	DIAM MATERIAL	THICKNESS THOMES	FRUM	10		L AND TYPE		DEPIR TO TOP OF SCREEN	A1-44 30
18	<u>'5</u>	SALTY 4 INTERALS 6 IGAS FRESH 3 ISULPHUR	1 DSTEEL 2 DGALYANIZED 3 DCONCRETE				61	PLUGGI	IG & SEAL	ING REC	
9	<u>o '                                   </u>	SALTY 6 GAS	17-18 1 STEEL	19		20-21	<u>                                     </u>	AT - FEET	MATERIAL AND		
	2 [	SALTY 6 GAS	2 □ GALVANIZED 3 □ CONCRETE 4 □ OPEN HOLE 5 □ PLASTIC	·			0 10-13	64 4.17	4 69	5.5	
	2 [	FRESH 3 ESULPHUR 23 SALTY 6 GAS	24-25 1 DSTEEL 2 DGALVANIZED 3 DCONCRETE	2.5		27-30	18-21	22-25	of ce	<u> کا د ۱۲</u>	
		FRESH 3 SULPHUR 348 1 MINERALS 2 SALTY 6 GAS	4 G GPEN HOLE				26-29		<u> </u>		
71	PUMPING FEST NE	THOD 10 PUMPING RAT	05 1	0F PUMPING 17- 15-16 17- HOURS MI				CATION		··	
	STATIC LEVEL	WATER LEVEL ES	LEVELS OUDING	PUMPING		IN DIAG LOT LI		SHOW DISTAN ATE NORTH BY	CES OF WELL ARROW.	FROM ROAD	AND
TEST	30	22-24 IS MINUTES	28 0,- 28-31 017	I						524.44	
NG	IF FLOWING.	SE-41 PUMP INTAKI		FEET	42				W-		.5
PUMPING	RECOMMENDED PU		ED 43-45 RECOMMEN	LEAR 2 CLOUD	<b>⊸</b> 4 I			25ft	•		
	SHALLOY	V DEEP SETTING	PUMPING FEET HATE	G	PM .			40		WE	·
	EINAL	54 WATER SUPPLY	S ABANDONED, I	NSUFFICIENT SUPPL	<u></u>		ho	Se 1	150 <del>f</del> 1.		
	FINAL STATUS	2 GBSERVATION W	) UNFINISHED	DOR QUALITY					•		
	OF WELL	PRECHARGE WELL	S COMMERCIAL		$\dashv \parallel$			·			
	WATER USE	2 STOCK 3 IRRIGATION 4 INDUSTRIAL	6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 0 ☐ COOLING OR AIR C	CONDITIONING		_		C 0 2 4		*ناهاند تراجي	
	U3E	OTHER	<del>-</del>	NOT USED		<del></del>			<del></del>		
	METHOD	CABLE TOOL ROTARY (CONVE	_	OND						O.	1828
СО	OF NSTRUCT	ON 4 D ROTARY (REVER	9 🔲 DRIVI	ING		RILLERS REMARI	KS			J.	1020
	NAME OF WELL		[v	WELL CONTRACTO	ᇒᆫ	DATA	58 CO	B 2 4 1	62 DATE RECEIVE		63.60 IO
10 R0	ADDRESS	best Der	<u>e</u>	6241	-  i	SOURCE DATE OF INSPE		INSPECTOR		30 19	<u>   </u>
RAC	NAME OF WE	LOUSE Crae	<u>-k</u>	WELL TECHNICIAL		D REMARKS					
CONTRACTOR		best Deser	SUBMISSION DA	TO SOUTH		20170					
	bull	F TECHNICIAN/CONTRACTOR	DAY 27	MO D YR.		5				ORM NO. 050	16 (11/86) FORM 9



Ontario	1. PRINT ONLY IN 2. CHECK 🗵 CORF	SPACES PROVIDED LECT BOX WHERE APPLICABLE	<u> </u>	803275	58001	(°,0,1)	<u>      45</u>
COUNTY OR DISTRICT	+	TOWNSHIP BOROUGH, CIT	C Q	co	N BLOCK TRACT SURVEY ETC	line	6.27
		100	11100	Rd	γο	TE COMPLETED AV	w 90
		ving	, , , , , , , , , , , , , , , , , , ,	ELEVATION RC	BASIN CODE	îı 114 l	
	12	OG OF OVERBURDEN	AND BEDROCI	K MATERIALS (SEE	E (NSTRUCTIONS)		47.
GENERAL COLOUR	MOST	OTHER MA			ERAL DESCRIPTION	O E P T	H - FEET
	L · / ]	50 40	ldors		Hand	0	#7
9	R-R			4	tand	42	60
77							<u> </u>
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<del>                                     </del>							-
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31						ببلبينا	ا لبل
32	14 15 21	32		3	54 7F : S   OF OPENING 31-33	65 DIAMETER 34-38	75 BO
WATER FOUND	ER RECORD	INSIDE	OPEN HOLE RE	TH - FEET W	SLDT NO :	INCHES	FEET
1 <b>/</b> 4   -	FRESH 3 SULPHUR SALTY 4 DMINERALS	INCHES	INCHES FROM	10 O W	ATERIAL AND TYPE	OF SCREEN	P 41-44 10
15 18 1	FRESH 3 DSULPHUR	2 GALVANIZED 3 DCONCRETE 4 DOPEN HOLE 5 DPLASTIC	1.88 0	1/2 61	PLUGGING &	SEALING REC	ORD
20-23	FRESH 3 SULPHUR 24	1 STEEL	19	20-23 DEP	TH SET AT TEST MATE	DIN 45 D TYPE (CE	MENT GROUT PACKER ETC :
75.14	SALTY 6 GAS  FRESH 3 GSULPHUR 29	6 - 3 CONCRETE 4 COPEN HOLE 5 PLASTIC	42	7 60 2	) 10-13 2 0"·17 Q	met he	_كسو
	SALTY 6 GAS  FRESH 3 SULPHUR 34	1   STEEL 2   GALVANIZED 3   CONCRETE 4   GOPEN HOLE	6	27.30	26-29 30-33 80	<u>.                                    </u>	
	4 □ MINERALS SALTY 6 □ GAS	4 GOPEN HOLE 5 GPLASTIC					
71 PUMPING TEST NETH		10	PUMPING -16 <b>(</b> )17-18		LOCATION OF		
STATIC LEVEL	WATER LEVEL 25 END OF WATER PUMPING	LEVELS DURING	PUMPING RECOVERY		ELOW SHOW DISTANCES OF INDICATE NORTH BY ABROV		AND
7 TEST	48 35 MINUTES	20 3/ (20-31	2, 2, 37		with		.0
IF FLOWING.	SE-41 PUMP INTAKE	SET AT WATER AT EN	O OF TEST 42	-	7	c	a Carrier
IF FLOWING. GIVE RATE  RECOMMENDED PUN	GPN  IP TYPE RECOMMENDS	FEET 1 CLEA			f	7	す、
SHALLOW 10-53		48 FEET MATE	—————————————————————————————————————	11-0	dine	Rd	200
FINAL	WATER SUPPLY	5 () ABANDONED, INSI		77.79			<u> </u>
STATUS OF WELL	z OBSERVATION WE 3 TEST HOLE 4 RECHARGE WELL	LL #   ABANDONED POO 7   UNFINISHED   DEWATERING	R QUALITY	colque			
	SI DOMESTIC	S COMMERCIAL			1 3 50	mite /	*
WATER	3   IRRIGATION 4   INDUSTRIAL	B ☐ MUNICIPAL  7 ☐ PUBLIC SUPPLY  8 ☐ COOLING OR AIR CON	DITIONING		12	>	
•	OTHER	9 D N	1 1		18		
METHOD OF	CABLE TOOL ROTARY (CONVE) ROTARY (REVERS		,		14	0	0070
CONSTRUCTIO		■ □ DRIVING	OTHER &	DRILLERS REMARKS	74	. ამ	8876
NAME OF WELL C	CONTRACTOR	, WEL	L CONTRACTOR	DATA 50	CONTRACTOR 59 62 DATE		63-66 80
ADDRESS C	5 Bours	2015 /4	114	D DATE OF INSPECTION	I 4 I 4	NOV 28 19	99U
NAME OF WELL	+ H /b /	N WE	LL TECHNICIAN'S	S REMARKS		<u> </u>	
ADDRESS OF WELL	A M	SUBMISSION DATE		OFFICE			
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COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CI	n Wa L		CON BLOCK	TRACT, SURVEY	ETC	W/2
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31		<u>.                                     </u>	;		<u> </u>		
41 WATER R	ECORD 51 CASING 8	OPEN HOLE	RECORD	SIZE (S) OF OPI	ENING 31-	-33 DIAMETER 34	75 80 1-38 LENGTH 39-40
30.13	OF WATER INSIDE DIAM MATERIAL INCHES	WALL THICKNESS INCHES	DEPTH - FEFT ROM 70	MATERIAL AN	D TYPE	DEPTH TO OF SCREE	TOP 41-44 10
55 FRESH 2 SALTY	3   SULPHUR   10-11   1   15TEEL   2   GALVANIZED   3   CONCRETE	12	13.16	[S]			FEET
₹ B SALTY	4   MINEMALS   5   PLASTIC	. 88	20-23	DEPTH SET AT .	FEET MA		ICHMENT GROUT
2 SALTY	3   SULPHUR   1   1   1   1   1   1   1   1   1			10-13	10 14-17		END PACKER EIGT
2 GALTY	3   SULPHUR   34   24   25   1   STEEL   2   GALYANIZED   3   CONCRETE	26	27-30	18-21	22-25		
1   FRESH 2   SALTY	4 Open Hole 5 Open Hole 5 Open Hole			26-29	30-33 0		
71 PUMPING TEST METHOD		PUMPING 5-16 17-18 (OUgls MINS		LOCA	TION OF	WELL	
STATIC WATER LNO LEVEL PUMP	OF WATER LEVELS DURING	PUMPING  RECOVERY  ES   60 MINUTES	LOT L	AGRAM BELOW SHO INE INDICATE	OW DISTANCES NORTH BY ARR		OAD AND
5 5 3		15 30 AINUTES 32-37 FEET 3 0 FEET					
SECOMMENDED PUMP TYPE	38-41 PUMP INTAKE SET AT WATER AT PA	ID OF TEST 4Z	N	<b>-</b> 5			
RECOMMENDED PUMP TYPE	RECOMMENDED 43-45 RECOMMENDE PUMP PUMPING			- K	ousel 2	<del>-</del>	_
10-33			l v	<u>i.</u>		· • lox	XT
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OF WELL	☐ RECHARGE WELL ☐ DEWATERING						ľ
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METHOD   z	CABLE TOOL 5 G BORING 7 G DIAMON	D	] ]				
CONSTRUCTION	ROTARY (REVERSE)	•	DRILLERS REMAR	KS			91811
NAME OF WELL CONTRAC	TOR , WE	LL CONTRACTOR'S	DETA > SOURCE	5	333 52 DA	TE RECEIVED	63-64 80
ADDRESS  ADDRESS  NAME OF WELL TECHNIC  SIGNATURE OF TECHNIC	r vone	pati	D DATE OF INSPE		INSPECTOR	NOV 22 1	
MOOSE NAME OF WELL TECHT		ELL TECHNICIAN'S	HE HARKS		1		
SIGNATURE OF TECHNIC	CIAN/CONTRACTOR SUBMISSION DATE	10007	OFFICE				
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COUNTY OR DISTRICT	+	TOWNSHIP, BORGUGH CIT	TOWN VILLAGE	al	CON	BLOCK TRACT SURVEY		LOT 25-27
		C	DR~	wall			DAY 24 NO	May 48 89
1 2 M	10 12	H ING	ا ليب	C ELEVATION	, RC 36	BASIN CODE	" " <u>"</u>	<u> 1</u>
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32   WATER	BECORD	51 CASING &	OPEN HOLE	RECORD	\$17E (5)	OF OPENING 31-	33 D-AMETER 34	75 30 1-38 LENGTH 38-40
	RECORD  ND OF WATER	INSIDE MATERIAL	THICKNESS	DEPTH - FEET	Z (SLOT)	NO ) IAL AND TYPE	DEPTH TO	
) 8 1 - SAI	ESH 3 SULPHUR LTY 4 MINERALS 6 GAS	10-17 1 STEEL 2 GALVANIZED		13-16	SC		OF SCREE	
ž 🗋 ŠA	0 0 0 0 0 0	3 CONCRETE 4 DOPEN HOLE 5 DPLASTIC	/· <b>U</b> ·	0 33	61 01.01 01.01 SI	ET AT FEET	& SEALING R	LCEMENT GROUT
20-23   FRI 2   SAI	LTY 6 GAS	1 OSTEEL 2 OGALVANIZED 3 OCONCRETE 4 ROPEN HOLE		33 82	FROM 0-1	10	ERIAL AND TYPE	LEAD PACKER, ETC.)
25-28 t	LTY 6 DGAS	24-25 1 □ STEEL 2 □ GALVANIZED	•	27.30	18-1			
30-33       FRI		3 □ CONCRETE 4 □ OPEN HOLE 5 □ PLASTIC			24.2	30-33 90		
71 PUMPING TEST NETHOD	BAILER PUMPING RATI	<b>j</b> /#	1		L	OCATION OF	WELL	
LEVEL	PUMPING	EVELS DURING 2 🗇	PUMPING RECOVERY I 60 MINUTES	LOT L		W SHOW DISTANCES OF CATE NORTH BY ARRO		OAD AND
門 / p   '	8 FEET   15 MINUTES 24-2	الا م الا <del>لاعم</del> ا	34 > 8 HE	1 1		2	- C	
TF FLOWING, GIVE RATE  RECOMMENDED PUMP TY	38-41 PUMP INTAKÉ GPM	Ì	OF TEST 42			-		
RECOMMENDED PUMP TY	PE RECOMMENDE	A3-45 RECOMMENDED PUMPING RATE	3 GPM	11		) '		
54				]		-		
FINAL STATUS	1 WATER SUPPLY  1 OBSERVATION WE  3 TEST HOLE	S ABANDONED INSU  ABANDONED POOR  D UNFINISHED				·		
OF WELL	# DOMESTIC	DEWATERING  GOMMERCIAL		-		H	1 /2= -	DI
WATER USE	2 STOCK 3 IRRIGATION 4 INDUSTRIAL	■ MUNICIPAL  PUBLIC SUPPLY  COOLING OR AIR CONI		17	<u>)</u> /		1//22	17
37	OTHER	• □ NO	T USED	H- <i>H</i> -	\$ 170	mil /	Le Marie	
METHOD OF	POTARY (CONVEN	TIONAL) 7 DIAMOND		// يَ	ט י	. 7		52572
CONSTRUCTION	F DAIR PERCUSSION	● □ DRIVING □ DIGGING		DRILLERS REMAR				J Z J I Z
NAME OF WELL CONT	Bo US		L CONTRACTOR'S	SOURCE SOURCE		414	JUN 06	1989 "
ADDRESS	4/6.	22	<del>, , , ,</del>	]   W	ECTION	INSPECTOR		
ADDRESS  NAME OF WELL YE  SIGNATURE OF TECH	Hm	Lici	L TECHNICIAN'S ENCE NUMBER	REMARKS				• •
SIGNATURE OF TECH	Bonne	SUBMISSION DATE  DAY 2 1 MO	may ve &	OFFICE		<del>-</del> .		
	THE ENVIRON	MENT ACOM					FORM NO. C	0506 (11/86) FORM 9



The Ontario Water Resources Act

### WATER WELL RECORD

<b></b>	N SPACES PROVIDED RRECT BOX WHERE APPLICABLE	11	58030	08 <b>6</b>	5,8,5,0,1	CONA	×21 +01
Ston mont	TOWNSHIP, BORDUGH CITY	TOWN VILLAGE	ma 11	CON BL	OCK TRACT SURVEY	ETC	LO3 25-27
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GENERAL COLOUR MOST	OTHER MATE				DESCRIPTION	<del></del>	H · FEET
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32	<del></del>	<del>[                                    </del>		<u></u>	<u> </u>		
41 WATER RECORD	51 CASING & O	PEN HOLE	RECORD	SIZETSI OF		DIAMETER SE-38	75 BD
WATER FOUND KIND OF WATER	INSIDE DIAM MATERIAL INCHES	THICKNESS	DEPTH - FEET	N SLOT NO 1	AND TYPE	DEPTH TO TOP	FEET 41-44 30
3 GSULPHUR 2 SALTY 6 MINERALS 6 GAS	1 Lotest 12 GALVANIZED 3 GONGRETE	151 (	2	S		OF SCREEN	FEET
2 SALTY 6 GAS	17-18 1 OSTEEL		20-23	61 OLPTH SET A		SEALING RECO	
P GASTY 6 GAS	2 GALVANIZED 3 GONCRETE 4 GODEN MOLE	2	1	F H O M	IO MATE	RIAL AND TYPE LEAD P.	ACKER, ETC
FRESH 3 SULPHUR  2 SALTY 6 GAS	5 □PLASTIC  24-25 1 □STEEL 2 □GALVANIZED		27.30	19-21	<u> 20</u> 01	m Bu	
20-33 I FRESH 3 DSULPHUR 34 OD 4 DMINERALS 2 SALTY 6 DGAS	3 □ CONCRETE 4 □ OPEN HOLE 5 □ PLASTIC			26-29	30-33 80		
71 PUMPING TEST METHOD 10 PUMPING RATE	/ 15-16	71NG		LOC	ATION OF	WELL	
STATIC WATER LEVEL 25 LEVEL END OF WATER LE	GPN HOURS  EVELS DURING  RE		IN DIAG	GRAM BELOW S	HOW DISTANCES OF E NORTH BY ARROW	WELL FROM ROAD A	ND
10 50 23 TE-28	30 NINUTES   45 MINUTES   29-31   32-34	60 MINUTES -37		11	•		
	T PEET J FEET	FELT	No	1	ı		
FEET FEET FEET  IF FLOWING.  GIVE RATE  GPM  RECOMMENDED PUMP TYPE  RECOMMENDED  PUMP  PUMP  PUMP  FEET  FEE	43-45 RECOMMENDED	CLOUDY	1				
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FINAL WATER SUPPLY	# [] ABANDONED INSUFFIC					16 10	$\overline{}$
STATUS  2 G GBSERVATION WELL  3 G TEST HOLE  4 G RECHARGE WELL	L S ABANDONED POOR QU. 7 D UNFINISHED D DEWATERING	ALITY	Co	Rnu	val Co	the Ro	<del>/</del>
55-56   DOMESTIC	F GOMMERCIAL  MUNICIPAL	<del></del>			M	1	]
WATER 3   IRRIGATION   4   INDUSTRIAL	PUBLIC SUPPLY COOLING OR AIR CONDITIO	NING			12	1800	al
57 CABLE TOOL	• П мот us	ED			13	-10 me	19
METHOD 2   ROTARY (CONVENT)					3 20	•	
CONSTRUCTION - PROTARY (AIR)	D DIGGING	OTHER	DRILLERS REMARKS		191	40	167
NAME OF WELL CONTRACTOR	WELL CO	NTRACTOR'S	> DATA SOURCE	SI CONTRAC	OR 33062 DATE O	TAY 3 0 198	43.45 40
ADDRESS  SY A / 6 / 6  NAME OF WELL TECHNICIAN  NAME OF WELL TECHNICIAN  SIGNATURE OF ECHNICIAN/CONTRACTORY	87 14	' <del>' '</del>	DATE OF INSPECTS	194 194	INSPECTOR	1741 JU 198	9
NAME OF WELL TECHNICIAN	WELL TE	CHNICIAN'S NUMBER	S REMARKS				
SIGNATURE OF ECHNICIAN/CONTRACTOR/	SUBMISSION DATE	1	OFFICE				
MINISTRY OF THE ENVIRONM	ENT CORY	W YR	0			FORM NO. 0506 (11	/86) FORM 9



The Ontario Water Resources Act

### WATER WELL RECORD

Ontario	1. PRINT ONLY IN 2. CHECK 🗵 CORR	SPACES PROVIDED ECT BOX WHERE APPLICABL	11	58	030	82	5800U	Çon.	<u></u>
COUNTY OR DISTRICT	ant	FOWNSHIP, BOROUGH.		//		CON	BLOCK TRACE SURVEY	ETC	LQT 25-27
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		ig l	111	εc. ει	EVATION	#C.	BASIN CODE	" " "	
1 2	10 12 L(	G OF OVERBURD	EN AND BEDF	OCK N		LS (SEE IA	STRUCFIONS)	<del>1</del> 1 1 1 1 1	47
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER	MATERIALS			GENERA	L DESCRIPTION	FRI	DEPTH - FEET
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31				سا ا	ЩЦ	البل		السبال	ا لبلبا
32 WATI	ER RECORD	51 CASING	& OPEN HOLE	1 1		SIZE	OF OPENING 31	-33 DIAMETER 3	75 EG
WATER FOUND AT - FEET	KIND OF WATER	INSIDE MATERIAL	WALL THICKNESS	DEPTH -		Z ISLOT	IAL AND TYPE	OEPTH T	CHES FEET
17 1 -	FRESH 3 SULPHUR SALTY 4 MINERALS 5 GAS	INCHES    1 STEEL   2 GALVANIZED	12 / 50/	A	13-16	သွ		OF SCRE	
	FRESH 3 SULPHUR 19 SALTY 6 GAS	6 7 3 CONCRETE 4 COPEN HOLE 5 CPLASTIC	707	<u>ر</u>	50	61	PLUGGING	& SEALING F	
20-23	FRESH 3 SULPHUR 24 SALTY 6 SAS	1 STEEL 2 GALVANIZEE 3 OCONCRETE 4 COPEN HOLE	, "	0	6 y"	FROM	10 MA	TERJAL AND TYPE	(CEMENT GROUT LEAD PACKER ETC.)
2 0		5 PLASTIC	25		27-30		00	130 (30)	Chan
2 - 10-33	FRESH 3 SULPHUR 34 O 4 MINERALS SALTY 6 GAS	2 □ GALVANIZEC 3 □ COHCRETE 4 □ OPEN HOLE 5 □ PLASTIC				25-2	19-33 40		
71 PUMPING TEST METHO	, I		15-16 27 17-14			L	OCATION OF	WELL	
STATIC LEVEL	WATER LEVEL 25		HOURS MINS	1	IN DIA LOT LI		W SHOW DISTANCES CATE HOUTH BY ARR		GAD AND
TEST 11 19-21	22-24 15 MINUTES	30 MINUTES   45 MINU			ni	- n			
	J8-41 PUMP INTARE S	ET AT WATER AT	FEET JEST 42	4 1	-+>				
IF FLOWING GIVE RATE	TYPE RECOMMENDED PUMP	PEE!	EAR 2 CLOUDY	$\left\{ \left[ \right] \right\}$	/				
SHALLOW	DEEP SETTING	FEET RATE	5 GPM	_	-				<del></del>
FINAL	1 WATER SUPPLY 2 OBSERVATION WEL	\$ ABANDONED, IN		$ \tilde{j} $	1/2 =	1/1	*	1_	
STATUS OF WELL	3 TEST HOLE 4 RECHARGE WELL	7 UNFINISHED  DEWATERING	JOH GOALITY	'			国	13	
WATER	* DOMESTIC	5 COMMERCIAL 6 MUNICIPAL					6	$A_{\alpha'}$	/
USE	IRRIGATION INDUSTRIAL OTHER	PUBLIC SUPPLY COOLING OR AIR CO	NOT USED				1/25	1 / >	
METHOD	CABLE TOOL	■ □ BORING	G	$\left\{ \left[ \right] \right\}$			KI	- O	ا ج
OF CONSTRUCTION			6				1 7		40177
	AIR PERCUSSION		ELL CONTRACTOR'S	: —	ERS REMARK				7011
	Bour 51		CONTRACTORS	<u> </u>  }	ATA DURCE		1414	MAY 17	1989
PA STATES S A	A/600	on g		]	ATE OF INSPEC	710N	HSPECTOR		
NAME OF WEY	Se	~ <b>~</b>	ELL TECHNICIAN'S ICENCE NUMBER	]   D	EMARKS				
O SIGNATURE OF TE	Contractor	DAY 20 N	10 yr 8	OFFICE					
MINISTRY O	F THE ENVIRONM	IENT COPY	7					FORM NO. 0	0506 (11/86) FORM 9

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Ontario	1. PRINT ONLY IN :	SPACES PROVIDED  ECT BOX WHERE APPLICABLE	11	58036	<b>381</b>	58501	Pan	200
COUNTY OF DISTRICT	- m+	TOWNSHIP, BOROUGH CITY	. 1		CON . BL	with baa,		LOT 25.27
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32				)	┸┸┸┸┦ <b>┊╌</b> ┇┸╏┸╏╏	<u> </u>		
41 WATE	R RECORD	51 CASING & C	OPEN HOLE	RECORD	SIZE STO	F OPENING 31-33	DIAMETER 34-38 L	75 80 ENGTH 59-40
- 10·13 . Lan	KIND OF WATER	INSIDE DIAM MATERIAL INCHES	THICKNESS INCHES	DEPTH FFET	S MATERIA	L AND TYPE	DEPTH TO TOP OF SCREEN	FEET 41-44 30
θ, . □ .	6 □ GAS	10-11 1 STEEL 12 GALVANIZED 3 CONCRETE	1-89	13-16	S			FEET
* - 5	ALTY 6 DGAS	O 4 GONCRETE 4 GOPEN HOLE 5 GPLASTIC  1 DSTEEL		D 24	61 DEPTH SET	AT - FEET	SEALING RECO	RD NT GROUT
²   s	ALTY 6 GAS	2 GALYANIZED 3 CONCRETE 4 OPEN HOLE			FROM	10	- LEAO PA	CKER ETC )
1   F	ALTY 6 DGAS	1 OSTEEL 2 GALVANIZED		27-30	11 - :	21-25	men! h	80~1
30-23 I 🗀 F		3 COMCRETE 4 COPEN HOLE 5 CPLASTIC			26-29	39-33 80		
71 PUMPING TEST METHOD		L / 15-16	7 17:14		LO	CATION OF V	WELL	-
STATIC W	ATER LEVEL 25		PUMPING RECOVERY	IN DI Lot		SHOW DISTANCES OF ITE NORTH BY ARROW		ND /
1 35 13-31		30 MINUTES 45 MINUTES	BO MINUTES				Dont	<b>Z</b>
	FEET PUMP INTAKE S			<u> </u>		1	nou	<b>'</b>
IF FLOWING GIVE RATE		43-45 RECOMMENDED	2 E TLOUGY				$\mathcal{O}$	
O-53	D-DEEP SETTING	70 FEET RATE	4 сем	 				pi <del>ssa</del> .
FINAL	WATER SUPPLY	B ABANDONED, INSUF		i l				
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55-36	1 DOMESTIC	# COMMERCIAL # MUNICIPAL		,		3		
WATER USE	1 RRIGATION INDUSTRIAL	PUBLIC SUPPLY COOLING OR AIR CONDIT		80	350			
57	CABLE TOOL	* □ NOT	USED	0	_,/	3		
METHOD OF	Z ROTARY (CONVENTI 3 ROTARY (REVERSE)	ONAL) 7 DIAMOND		1 Cu	M		4.0	
CONSTRUCTION	4   ROTARY (AIR) 5   AIR PERCUSSION	□ DRIVING    □ DIGGING	□ отнея	DRILLERS REMAR	ks		40	194
NAME OF WELL CON	BOULCOE	LICEN	CONTRACTOR'S CE NUMBER	DATA SOURCE	54 CONTE	ACTOR 1 STATE R	1AY 0 3 1989	43-44 40
ADDRESS  ADDRESS  NAME OF WELL  OUT SIGNATURE OF THE	1/26/A"	8 nA		DATE OF INSPI	ECTION	INSPECTOR	11.11	
NAME OF WELL T	ECHNICIAN	WELL	TECHNICIAN'S	O REMARKS				
SIGNATURE OF TEC	WICIÁN/CONTRACTOR	SUBMISSION DATE		OFFICE	<b>"</b> 8			(
MINISTRY	THE ENVIRONME	JAY A O HO T	mary 8				FORM NO. 0506  1"	L/86) FORM 9



Ontario	Ellall	1. PRINT ONLY IN S	SPACES PROVIDED  ECT BOX WHERE APPLICABLE	11	58 <b>0</b> 30	52 🖺	<u> </u>	CON. 10A
COUNTY OR C	DISTRICT	l and g comm	TOWNSHIP, BOROUGH CITY	TOWN VILLAGE	<del></del>	CON BLOCK	TRACT SURVEY &	TC L01 25-27
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1 2		10 12	G OF OVERBURDEN	AND REDRO	CK MATERIAL	S (SEE INSTRUC	TIONS)	47
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41	WAT	ER RECORD	51 CASING & C	OPEN HOLE	RECORD	2 (SLO7 NO )	ENING 31	-33 DIAMCTER 34-38 LENGTH 39-40
WATER FOL	UND	KIND OF WATER	INSIDE DIAM MATERIAL INCHES		DEPTH - FFET	C MATERIAL AN	D TYPE	INCHES FEET DEPTH TO TOP A1-44 /30 OF SCREEN
56	****	FRESH 3 DSULPHUR 14 SALTY 4 DMINERALS G DGAS	10-11 1 STEEL 12		() SC	S		FEET
1		FRESH 3 SULPHUR 4 MINERALS SALTY 6 GAS	3 CONCRETE 4 CONCRETE 5 CONCRETE 5 CONCRETE 17-18 CONCRETE	188 (	7 7 7 20-23	61	FEET	& SEALING RECORD
20		FRESH 3 □SULPHUR 24 SALTY 6 □ GAS	1 DSTEEL 2 GALVANIZED 3 DCONCRETE 4 MOPEN HOLE 5 PLASTIC		55 57	FROM 10-13	14-17	TERIAL AND TYPE LEAD PACKER ETC 1
2		FRESH 3 SULPHUR 25 4 MINERALS SALTY 6 GAS	24-25 I □STEEL	<u> </u>	27.30	710-21	32/5	loySlorvy
34		FRESH 3 SULPHUR 34 4 5 5 5 5 5 5 5 5 6 5 6 6 6 6 6 6 6 6	2 □ GALVANIZED 3 □ COHCRETE 4 □ OPEN HOLE 5 □ PLASTIC		1.	26-29	39-32 60	
[71]	ING FEST NET		TE TI-16 DURATION OF P			LOCA	ATION O	WELL
	STATIC	WATER LEVEL 25 END OF WATER	GPM HO	PUMPING MINS	IN DIA		OW DISTANCES NORTH BY ARE	OF WELL FROM ROAD AND
LS	19-21	PUMPING 22-24 IS NINUTES 24:	3 30 MINUTES 45 MINUTES 20 29-3132	RECOVERY 60 MINUTES -34 33-37	,			•
	LOWING.	25 PEET 22 PUMP INTAKE	28 23-31 2432 EET 23 EET 2432					4
<u> </u>	HATE	GPM 5	FEIT	8 2 X CLOUBY		Hen	line	RI
9 3	SHALLOW	, РШМР	30 FEET RATE	50 GPM		4		
		MATER SUPPLY	S ABANDONED, INSU	OFFICIENT SUPPLY	¦	100		McConnell
ST	TATUS	2 OBSERVATION WE	ELL 6 ABANDONED POOL 7 UNFINISHED			عرايا		McConnell St
OF	WELL 5	4   RECHARGE WELL	S CONMERCIAL			8~	- 600	7
	/ATER	2 STOCK 3 REGATION 4 NOUSTRIAL	■ ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONE	DITIONING				
	USE	C OTHER	• □ NG			1.		
ME	ETHOD	1 CABLE TOOL 2 ROTARY (CONVE				N		\
CONS	OF TRUCTION	ON ROTARY (REVERS	■ □ DRIVING	. □ OTHE <b>R</b>	DAILLERS REMAR	ĸs	di.	40648
HAM		CONTRACTOR		L CONTRACTOR'S	4 <u> </u>	SB CONTRAC		FEB 2 2 1989 *****
10 vo	DRESS Y	SLBRLHd		1609	DATE OF INSPI	ECTION 4 0	HSPECTOR	ILU E E 1JUJ
CONTRACTOR		NG !	WE	LL TECHNICIAN'S	O REMARKS			
CON	Roger	TECHNICAN / CONTRACTOR		-0330	OFFICE I	VDE		
\ \ '	K	A	DAY MO	YR	ō			FORM NO. 0506 (11/86) FORM
MIN	NISTRY	OF THE ENVIRON	MENT COPY					,



	IN SPACES PROVIDED 11	5803051 558	BOOK (50M ) 125
COUNTY OR DISTRICT	TOWNSHIP, BORGUGH, CITY TOWN VILLAGE	CON , BLOCK, TH	VACT SURVEY ETC LOT 21-17
	e # / /	3 - Sn 14	DAY 22 NO 9 YR
	ING P		
1 2 4 10 12	LOG OF OVERBURDEN AND BEDRO		ionsi
GENERAL COLOUR COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCR	DEPIH - FEET
Brown Hardon		Packed	0 25
Grex Hardpan		Packed	75 38
Grey Grovel	Hudpan	Packed	38 89
frey limeston		Layered -	64 70
		-	
		,	
31			
32			65 75 80
WATER RECORD WATER FOUND KIND OF WATER	51 CASING & OPEN HOLE	DEPTH - FEET W	INCHES FEET
10-13 124 FRESH 3 SULPHUR	10-11 12-STEEL	TO UMATERIAL AND	TYPE DEPTH TO TOP 41-44 30 OF SCREEN
15-14 1 FRESH 3 SULPHUR 4 MINERALS	ZOGALVANIZED 30 CONCRETE 40 OPEN HOLE 50 PLASTIC	0 64 61 P	LUGGING & SEALING RECORD
20-23   FRESH 3   SULPHUR 2	17-18 1 STEEL 19 2 S GALYANIZED 3 CONCRETE	U   /c     ==============================	EET CEMENT GROUT OLAND TYPE LEAD PACKER, ETC (
25-28 1 FRESH 3 SULPHUR 4 MINERALS	24-25 1 □ STEEL	27-10 210-21	5 Cement
· = 483	2 GALVANIZED 3 CONCRETE 4 DOPEN HOLE 5 DPLASTIC	26-29	36-22 40
71 PUMPING TEST METHOD 10 PUMPING	RATE DURATION OF PUMPING	LOCAT	TION OF WELL
1 M PUMP 2 D BAILER	GPM 15-16 17-11 HOURS MINS	IN DIAGRAM BELOW SHOW	V DISTANCES OF WELL FROM ROAD AND ORTH BY ARROW
O PP-21 ZZ-Z4 15 MINU	TES 30 MINUTES 45 MINUTES 60 MINUTES	11	4
	FEET 3 FEET 4 FEET 5 TEET 4 FEET 4 FE	، عم	700 <del>-&gt;</del>
IF FLOWING. 38-81 PUMP INT. GIVE RATE  RECOMMENDED PUMP TYPE  RECOMMENDED PUMP TYPE  PUMP	FEET 1 CLEAR 1 CLOUDY	1 75	1
SHALLOW SETTING	6 O FLET RATE GPM		leation
14 🗸 🗸	Y B ABANDONED, INSUFFICIENT SUPPLY	1	
FINAL STATUS OF WELL  PECHARGE WE	WELL 6 ABANDONED POOR QUALITY 7 UNFINISHED		
55-56 DOMESTIC	5 CONMERCIAL  6 MUNICIPAL	$\parallel$	Melconnell
WATER  3   IRRIGATION  USE 4   INDUSTRIAL	PUBLIC SUPPLY  COOLING OR AIR CONDITIONING		
□ OTHER	NOT USED		
METHOD  OF  CABLE TOOL  ROTARY (CON'  D ROTARY (REVI	ERSEI # 🗍 JETTING		28661
CONSTRUCTION A M ROTARY TAIRS		DRILLERS REMARKS	20001
MAME OF WELL CONTRACTOR	WELL CONTRACTOR	DATE OF INSPECTION	0 9 FEB 2 2 1989
Address S. C.		DATE OF INSPECTION	INSPECTOR
Address S B L L C	WELL TECHNICIAN'S	↑ D HEHARKS	<u> </u>
S SIGNATURE OF TECHNICIAN SONTRACTO		WDE	j
MINISTRY OF THE ENVIR	DAY MO YH		FORM NO. 0506 (11/86) FORM 9



Ontario	TOTIMENT.  PRINT ONLY IN:  THECK X CORR	SPACES PROVIDED ECT BOX WHERE APPLICABLE	11	580305	0 5800	[ COM.	
COUNTY OR DISTRICT		TOWNSHIP BOROUGH CITY.	TOWN VILLAGE		CON BLOCK TRACT, SURV	EY ETC	8 25-27
		ン <b>は</b> 1		C- 11		DAY 17 MO	0"" yR 88
		ING	LONG.	ELEVATION	RC. BASIN CODE		
	M 10 12	OG OF OVERBURDEN	AND PEDRO	OCK MATERIALS	30 31	<u> </u>	47
GENERAL COLOUR	Mast	OTHER MATI			GENERAL DESCRIPTION	DE FROM	PTH - FEET
Brown	COMMON MATERIAL			Pack	od	0	11
Drown	Hardpon			Pack	Led	11	32
bres	Gave			Packe	T	32	56
Grey	Limestone			Lux	ered_	56	65
	<u> </u>						
					<u>.                                    </u>		
	`				<u> </u>		
				i i			
31					لللساليا	عللساليا	ا لبب
32	14 15 21			<u> </u>	SIZEIST OF OPENING	55 31-33 DIAMETER 34-	75 60 38 LENGTH 39-40
WATER FOUND	ATER RECORD	INSIDE	OPEN HOLE	DEPTH FFET	SLOT NO 1	INCH	ES FEET
AT - FEET	PRESH 3   SULPHUR	DIAN MATERIAL INCHES	THICKNESS F	ROM 10	)	DEPTH TO OF SCREEN	
15-18 1	6 GAS	1 D STEEL 2 D GALVANIZED 3 CONCRETE 4 COPEN HOLE	120	o 56 li	61 PLUGGII	NG & SEALING RE	CORD
20-23 1	GALTY 6 GAS GRESH 3 GSULPHUR 24	17-18   DSTEEL   19   2   DGALVANIZED	,	20.23	DEPTH SET AT FEET		(CEMENT GROUT EAU PACKER ETC.)
	SALTY 6 GAS	3 D CONCRETE 4 DOPEN HOLE 5 D PLASTIC		06 65	Z ¹⁰⁻¹³ 5 8-17	Conent	
	SALTY 6 GAS  FRESH 3 SULPHUR 34 F	24-23 1 STEEL 24 24 25 26 26 26 26 26 26 26 26 26 26 26 26 26	<u>'</u>	27.10	18-21 22-25 26-29 30-33 80	· · · · · · · · · · · · · · · · · · ·	
2	SALIT & JGAS	3 UPLASTIC					
71 PUMPING TEST M	ETHOD 10 PUMPING RAT	E 0-14 OURATION OF PI	1000		LOCATION		
STATIC LEVEL	PUMPING	LEVELS DURING	PUMPING RECOVERY	IN DIAGRA LOT LINE	AM BELOW SHOW DISTAN INDICATE NORTH BY		AD AND
20 TEST	50 30	" 40" 45"	"50"			Λ	ļ
IF FLOWING. GIVE RATE  RECONMENDED F	FEET FEET FEET SOUND INTAKE	SET AT WATER AT END	OF TEST 42			7;	
RECONMENDED F	GPM 6 PUMP TYPE RECOMMENDE	FEET 1 CLEAR D 43-45 RECOMMENDED PUMPING	CLOUDY		(miles	$\mathbf{V}$	,
☐ SHALLO		S FEET RATE	GPM GPM		7		
FINAL	WATER SUPPLY	8 ABANDONED, INSUI		il !	350		
STATUS OF WELL	2 OBSERVATION WE 3 TEST HOLE 4 RECHARGE WELL	LL 6 ABANDONED POOR 7 UNFINISHED DEWATERING	R QUALITY		Head	line Rd	
	53-36 1 A BOMESTIC	5 COMMERCIAL 6 MUNICIPAL					
WATER	3   IRRIGATION	7 PUBLIC SUPPLY  G COOLING OR AIR COND		\			
	0 OTHER	* □ NO:	T USED	h	c Connell		
METHOD OF	CABLE TOOL ROTARY (CONVEN ROTARY (REVERS				<b>3</b> st,		40007
CONSTRUCT		DIGGING	☐ OTHER	DRILLERS REMARKS			40267
$-1+\alpha$	L CONTRACTOR		L CONTRACTOR'S	i I > Isouace		FEB 2 2	1989 ''''
ADDRESS	SLKKLtd		604	DATE OF INSPECTIO	<u> </u>		1303
ADDRESS ON ADDRESS OF ON NAME OF WILLIAM	Wall	WEL	L TECHNICIAN'S	S REMAPES			
SIGNATIFIC	DE PERHACIAN/CONTRACTOR	SUBMISSION DATE	-0330	WDE			
	2/-	DAY MO	YR	ō		EAGN NA A	506 /11 /86 F00M 0
MINISTRY	OF THE ENVIRON	MENT COPY				FOHM NO. 0	506 (11/86) FORM 9



Ontario	SPACES PROVIDED  ECT BOX WHERE APPLICABLE	5803015 Se.5011 (5)	22 23 74
COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY TOWN VILLAGE	CON BLOCK TRACT, SURVEY ETC	101 25-27
	VWALL	DATE CO	MPLETED 41.53
	NG TE AC	ELEVATION RC BASIN CODE	III IY
10 12	17 16 28 25	24 30 31	
LC	OG OF OVERBURDEN AND BEDROO		DEPTH - FEET
GENERAL COLOUR COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	FROM TO
BROWN PIN		THE D	03 60
GREY FAN		HARA	10 62
OREY ROCK	1,	anxo —	65 93
i i		Torres Pr.	
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	1 1 1 2 1 1 1 1 1 1		
31		<u>                                     </u>	
41 WATER RECORD	51 CASING & OPEN HOLE R	ECORD   SIZE(S) OF OPENING 31-33   DIV	TS 80
WATER FOUND KIND OF WATER		EPTH - FEET W MATERIAL AND TYPE	DEPTH TO TOP 41-44 10 OF SCREEN
60-13   RESH 3   SULPHUR 14   MINERALS   SALTY   6   GAS	4 P-11 1 Statem 12	) / A	FEET
15-10 1 FRESH 3 DSULPHUR 17 A MINERALS 2 SALTY 6 GAS	6 9 2 GALVANIZED 3 GONCRETE 4 GOPEN HOLE 5 GPLASTIC	61 PLUGGING & SE	
20-23 1 FRESH 3 SULPHUR 24 2 SALTY 6 GAS	1 STEEL 19 SALVANIZED 3 CONCRETE 4 BOPEN HOLE	SROM TO MATERIAL	AND TYPE ICEMENT GROUT LEAD PACKER, ETC.
23-24 1 FRESH 3 DSULPHUR E9	4 BOPEN HOLE 5   PLASTIC  24-25   1   STEEL	27-30 July 22-25 Cm	et that
. 30-33 1 FRESH 3 SULPHUR 34 IC	2 GALVANIZED 3 GCONCRETE 4 GPEN HOLE	26-26 30-33 80	
PUMPING TEST METHOD 10 PUMPING RAT	5 □ PLASTIC	LOCATION OF WE	11
71   PUMP 2 BAILER	2.5 GPN 15-16 17-18 HOURS 0 41-55	IN DIAGRAM BELOW SHOW DISTANCES OF WE	LL EROM BOAD AND
LEVEL PUMPING WATER	LEVELS DURING RECOVERY	LOT LINE INDICATE NORTH BY ARROW.	North
15 20 40 40 4 0 4 0 15 MINUTES	ET 40 EET 70 FEET 70 FEET	<b>)</b>	/
IF FLOWING. GIVE RATE  GOMENDED PUMP TYPE  RECOMMENDED PUMP TYPE  PUMP	WATER AT END OF TEST 42	(a)	0 -1
RECOMMENDED PUMP TYPE PUMP SHALLOW DEEP SETTING		1 mile	SOFEET
O-23			
FINAL   WATER SUPPLY	# ABANDONED, INSUFFICIENT SUPPLY ELL # ABANDONED POOR QUALITY	HEALINE	No
STATUS  OF WELL  TEST HOLE  RECHARGE WELL	DEWATERING		ş*
WATER	COMMERCIAL MUNICIPAL		-2° (2)
USE   IRRIGATION   USE   OTHER	? ☐ PUBLIC SUPPEY  ■ ☐ COOLING OR AIR CONDITIONING  P☐ NOT USED		·
57 CABLE TOOL	80RING		
METHOD 2 D ROTARY (CONVEY  OF 3 D ROTARY (REVERS	NTIONAL) 7 □ DIAMOND . SEI ■ □ JETTING		40505
CONSTRUCTION       ROTARY (AIR)       AIR PERCUSSION	• D BRIVING D DIGGING D OTHER	DRILLERS REMARKS	40303
NAME OF WELL CONTRACTOR	WELL CONTRACTOR'S	DATA SOURCE SA CONTANCEOR S9-62 DATE RECE	P 0 7 1988 ""
ADDRESS  ADDRESS  NAME OF WELL TECHNICIAN  OF SIGNATURE OF TECHNICIAN CONTRACTOR  SIGNATURE OF TECHNICIAN CONTRACTOR		OATE OF INSPECTION HEPECTOR	
OF NAME OF WELL TECHNICIAN	Sand WELL TECHNICIAN'S LICENCE NUMBER	O REMARKS	
SIGNATURE OF TECHNICIAN/CONTRACTOR	SUBMISSION DATE	O FFICE	\$
MINISTRY OF THE ENVIRON		<del></del>	FORM NO. 0506 (11/86) FORM 9

Ministry The Ontario Water Resources Act of the VATER WELL RECOR Environment 5802930 1. PRINT ONLY IN SPACES PROVIDED Z. CHECK 🗵 CORRECT BOX WHERE APPLICABLE COUNTY OR DISTRICT TOWNSHIP, BOROUGH CITY TOWN n W+L LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS) GENERAL DESCRIPTION GENERAL COLOUR 0 16 BoulDERS BROWN 16-63 31 32 CASING & OPEN HOLE RECORD 51 41 WATER RECORD DEPTH FROM WATER FOUND AT - FEET KIND OF WATER tΩ Z SALTY 3 □ SULPHUR 4 □ MINERALS 6 □ GAS 188 65 0 3 □ SULPHUR 4 □ MINERALS 6 □ GAS ¹ ☐ FRESH 61 **PLUGGING & SEALING RECORD** Z 🔲 SALTY FEET 1 STEEL 2 GALVA 3 CONCI 1 | FRESH 4 OPEH HOLE 5 PLASTIC 66 65 2 Q. is FRESH 3 □ SULPHUR 4 □ MINERALS 6 □ GAS 1 D STEEL
2 D GALVANIZED
3 D CONCRETE
4 DOPEN HOLE
5 D PLASTIC 1 🔲 FRESH LOCATION OF WELL 1 D PUMP IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW ATER LEVEL END OF PUMPING 12-24 3 0 FEET 35 FEE PUMPING RECOMMENDED PUMP SETTING FEET HATE ☐ SHALLOW [LEF HFADCINE 10 200¹ I THATER SUPPLY

OBSERVATION WELL B ☐ ABANDONED, INSUFFICIENT SUPPLY

■ ☐ ABANDONED POOR QUALITY FINAL **STATUS** S TEST HOLE

A RECHARGE WELL 7 | UNFINISHED OF WELL 9 DEWATERING 1 D DOMESTIC S COMMERCIAL # MUNICIPAL

# DUBLIC SUPPLY WATER 3 | LARIGATION ■ □ COOLING OR AIR CONDITIONING
■ □ NOT USED USE 4 [] INDUSTRIAL □ OTHER 1 T ABLE TOOL
2 ROTARY (CONVENTIONAL) ■ D BORING METHOD 7 DIAMOND 3 | ROTARY (REVERSE) ■ ☐ JETTING
■ ☐ DRIVING OF OTARY (AIR) CONSTRUCTION DRIVING OTHER DIGGING DRILLERS REMARKS WELL CONTRACTOR DATA SOURCE ONLY GillES BOURGEOIS 1LTD FEB 1 8 1988 1414 INSPECTOR DATE OF INSPECTION USE OFFICE

MINISTRY OF THE ENVIRONMENT COPY

NO _0/

FORM NO. 0506 (11/86) FORM 9

Ministry of the	· ·	3.4.4	<b></b>		ntario Water Resour	RECC	<b>1</b> 00
Environ ntario	ment		5	8 <b>0</b> 287		RECC	)KL
DUNTY OR DISTRICT	_	PACES PROVIDED  COT BOX WHERE APPLICABLE  TOWNSHIP BOROUGH CITY, TOWN, V			CON . BLOCK, TRACT, SURV	TIS EY ETC	21 21 74 Lar 25-27
C 1	-1	CAR Wall			4	DATE COMPLETED	1
		RRIL.	0 1	X = 1/4		DAY 17 NO	1ept 8)
			[]	ELEVATION	PC BASIN CODE	<u> </u>	Luin
		G OF OVERBURDEN AND	BEDROCK	MATERIAL			
SENERAL COLOUR	MOST	OTHER MATERIALS			GENERAL DESCRIPTION	DEP FROM	TH - FEET
<del>, +-</del>	COMMON MATERIAL	h. u lde	<i>r</i> 5		Hand	ට	8_
bgoun	T:11	boulds boulds	<u> </u>		Hard	8	60
1	92-44	00000		-	Hand	60	65-
Grey	1000						
			·				
							-
31	بنيا ليليا		ا لبلنا				
32		32			54 SIZEISI OF OPENING	65 31-33 DIAMETER 34-3	PS LENGTH 39-
<del></del>	RECORD	51 CASING & OPEN	DEP	CORD	Z SLOT NO 1	INCHI	
AT · FEET	RESH 3 DSULPHUR	DIAM MATERIAL THICKN		TQ 13-16	MATERIAL AND TYPE	OFFTH TO T OF SCREEN	· QP 41-44 FE£Τ
2 G S		1 OSTEEL 2 GALVANIZED 3 CONCRETE 4 DOPEN HOLE	8	65	61 PLUGGI	NG & SEALING RE	CORD
2 [ S	ALTY 6 GAS	S DPLASTIC	+0	20.23	DEPTH SET AT - FEET FROM TO		CEMENT GROUT AD PACKER, ETC.)
z0-23 1 [] F z [] S	ALTY 6 GAS	2 □GALVANIZED 3 □ CONCRETE 4 □ OPEN HOLE	l' i		1 2 3 "	C 40000	FRIM
25-28 I 🗀 F		5 □ PLASTIC  24-25 1 □ STEEL 2 □ GALVANIZED		27-30	18-21 22-25		
30-53 1		GONGRETE 4 GOPEN HOLE 5 PLASTIC	<u> </u>		26-29 30-33		
PUMPING TEST METHOL					LOCATION	OF WELL	
	VATER LEVEL 25	Sen 15-16 HOURS	3 MINS		AGRAM BELOW SHOW DISTAN	ICES OF WELL FROM RO	AD AND
LEVEL	END OF WATER PUMPING  22-24 IS MINUTE.	LEVELS DURING		LOT L	INE INDICATE NORTH BY	ARROW	5h
≝las' l	23 7,3	EET SOMET SOMET S	~0 FEET	*		$\sim$	
IF FLOWING.	38-41 PUMP INTAK	E SET AT WATER AT END OF TEST	41 באסטסג			1)	
FEET SIF FLOWING. GIVE RATE  RECONMENDED PUMP	GPM RECOMMEND	TEE!	****	3		1	
SHALLOW		50 FEET RATE 8	GPM -	31			
	1 WATER SUPPLY	■ □ ABANDONED, INSUFFICIEN	IT SUPPLY	1			
FINAL STATUS	2 OBSERVATION W	ELL & ABANDONED POOR QUALITY  J UNFINISHED	17			·	2
OF WELL	4   RECHARGE WELL	. 9 DEWATERING 5 COMMERCIAL	<u></u>	<u> </u>		Hrad In	rd
WATER	2 STOCK	MUNICIPAL  PUBLIC SUPPLY	- 11			4	•
USE	A   INDUSTRIAL	<ul> <li>■ COOLING OR AIR CONDITIONIN</li> <li>D NOT USED</li> </ul>	16			C	
	CABLE TOOL	€ ☐ BORING			1-	<del>d</del>	
METHOD OF	2 ROTARY (CONVE		14			1 1	L6 <b>30</b>
CONSTRUCTIO	N 4 D ROTARY (AIR)	_	THER	DRILLERS REMAI	aks	L L	
HART OF WELL C	NEACTOR PL	WELL CON-		SOURCE	58 CONTRACTOR 59	OCT 2 1	1987
ADDRESS	1) por	y t	<del>' </del>	DATE OF THE	PECTION INSPECTO		
NAME OF WELL	TECHNIGIAN	WELL TEC	HNICIAN'S	S WHANT			
12 12	L A SUNTERPRICATE LA CONTRACTION	LICENCE !	-UMBER	)FFICE	\		
In Company one of t		1500	7 - 1	<b>5</b>	1		

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FORM NO. 0506 (11/86) FORM 9

Ontario Enviro	. PRINT ONLY IN SP	ACES PROVICED	58024	58 7800	عن الآه	N	105
COUNTY OR DISTRICT		TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	· /	CON . BLOCK, TRACT, S	URVEY ETC	- I	or 25.27
		CT LUDO	=C	, EST	DATE COMPI	ETED 7	8/
		HING RO	ELEVATION	RC BASIN CODE		ш	l¥
,	LO	G OF OVERBURDEN AND BEDRO		LS (SEE INSTRUCTIONS)			.42
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS		GENERAL DESCRIPTIO	4	DEPTH FROM	· FEET
BROWN	HARD PA	N STONES	5	HARC	>	0	8
GREY	11 11	4 4		1011		8	57
1.1.	IME STOP	VE	-Ay	IERED		57	70_
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<u> </u>							
						, , , , , , , , , , , , , , , , , , , ,	
31							
32	115 21			52	الماليا		75
WATER FOUND	R RECORD	51 CASING & OPEN HOLE	RECORD	SIZE S) OF OPENING  (SLOT NO)	ST-33 DIAMET	79 34-38 L	ENGTH 39.40
10-13 Jac FI	RESH 3 SULPHUR 14	DIAM MATERIAL THICKNESS INCHES 10-11 TO STEEL 12	ROM TO 13-16	MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN	#1-#4 CD
15-16 1 FI	RESH 1 SULPHUR 13	2 GALVANIZED 1 CONCRETE 4 LI OPEN HOLE	0 56	61 PLUGO	ING & SEAL	ING RECO	RD
20-23 1 _ FI	RESH ³ [] SULPHUR ²⁴	/17 18   STEEL 13   Z GA.VANI7ED	20.23	DEPTH SET AT - FEET FROM TO	- MATERIAL AND		NT GROUT CRER ETC '
25-28 L	ALTY 4 MINERAL  RESH 1 J SULPHUR 29	CONCRETE  A COPEN HOLE  24-25 I L STEEL  25	6 70	18-21 22-75			
30-33 - 1 D FI	ALTY 4 T M:NERAL  RESH 3 T SULPHUR 34 80	2 □ GALVANIZED  3 □ CONCRETE		26-29 30-33	80		
PUMPING TEST NETHOD	ALTY 4   MINERAL	1-14 QUANTION OF PUMPING	]	LOCATION	OF WELI		
71 1 PUMP 2	ATER LEVEL 25	O GPW 15.16 17.18 17.18 MINS 1 ₩ PUMPING		AGRAM BELOW SHOW DIST	ANCES OF WELL I		 м <b>þ</b>
LEVEL 19-27	END OF WATER LEY PUMPING  22-24 IS MINUTES	ZELS BURING ZELS RECOVERY  30 MINUTES 45 MINUTES 60 MINUTES	LOTI	INE INDICATE NORTH	ARROW.	ı	
S IF FLOWING	76 FEET 25 FEET	7 5 29-31 45 32-34 46 FEET TAT WATER AT END OF TEST 42		0 2 0/	M/ -	2	
GIVE RATE	GPM 7	O FEET 1 CLEAR 2 CLOUDY		T.	busel	1	
SHALLOW	PPE RECOMMENDED PUMP SETTING	43-45 RECOMMENDED 66-49 PUMPING RATE GPM		10 1	1000	1	
50-53	`		<del>                                    </del>		0	الرا	
FINAL STATUS	WATER SUPPLY 2 GBSERVATION WELL 3 G TEST HOLE	<ul> <li>BANDONED, INSUFFICIENT SUPPLY</li> <li>BANDONED POOR QUALITY</li> <li>UNFINISHED</li> </ul>		EXDIM	KOAD	威	'
OF WELL	DOMESTIC	5 COMMERCIAL		A			
WATER USE	2 STOCK 3 IRRIGATION 4 INDUSTRIAL	MUNICIPAL     PUBLIC SUPPLY     COOLING OR AIR CONDITIONING				湖	
	OTHER	D NOT USED	4				: 1
METHOD OF	1 CABLE TOOL 2 ROTARY (CONVENTION 3 ROTARY (REYERSE)	BORING  7 □ DIAMON  1 □ DIAMON  2 □ DIFTING	<u> </u>		₹ <b>.</b> •		r
OF DRILLING	PROTARY (REVERSE) ROTARY (AIR) Graph Air Percussion	# [] DRIVING	DRILLERS REMAR	.xs	. 4	21/	
NAME OF WELL CON	TRACTOR, /2	LICENCE NUMBER	0414		9-62 DATE RECEIVED	) /) ^	63-61 60
ADDRESS  ADDRESS  NAME OF DRILLER- NAME OF CONT	ng s spoet	1 460g	SOURCE O DATE OF INSPI		OR	113	<u> </u>
NAME OF DRILLER-	R HORER	LICENCE NUMBER	M ACMARKS:	· .			
SIGNATURE OF EON	TRACTOR	SUSMISSION DATE	OFFICE	WDE			
MINUST	TOV OF THE EN	IVIRONMENT COPY				ORM NO 0506	-477 FORM 7

# WATER WELL RECOP

Ontario  I. PRINT ONLY IN  2 CHECK S CORP	SPACES PROVIDED RECT BOX WHERE APPLICABLE	580221	9 58501	CON.
Sterment	TOWNSHIP, BOROUGH CITY, TOWN, VILLAG	É	CON . BLOCK, TRACT, SURVEY ET	C LOT 25.27
	58 Pitt Stre	et, Cormsell,		TE COMPLETED (1.53 79
	THING	5 0200	Pr Bacin and	мо <u>ү</u> я
LC	OG OF OVERBURDEN AND BEDE	25 25	30 31	
GENERAL COLOUR MOST COMMON MATERIAL	OTHER MATERIALS		GENERAL DESCRIPTION	DEPTH - FEET
Brown Hardpan		Pec	:ked	0 37
Orey Limestone	Rock	Ray	rd	37 81
100				
31) CO376VA79 10081	[215] 21 <u>73</u>			
32	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
WATER FOUND WATER FOUND AT - FEET KIND OF WATER	51 CASING & OPEN HOLE	RECORD Z	SIZE:SI DF DPENING 31-33	65 75 80 DIAMETER 34-38 CENGTH 39-40
	DIAM MATERIAL THICKNESS !	RECORD STATE OF THE CONTRACT O	MATERIAL AND TYPE	OF SCREEN FEET
15 18	GALVANIZED  3 CONCRETE	0 238 6	DI NOCINO S O	FEET
20-23 1 [7] FRESH 3 [7] SULPHUR 24	4 OPEN HOLE	20-23 0	EPTH SET AT - FEET	EALING RECORD
2 SALTY 4 MINERAL 25-26 1 FRESH 3 SULPHUR 29	CONCRETE  DOPEN HOLE		10-13 14-17	LEAD PACKER, ETC )
2 SALTY 4 MINERAL 30-33 1 FRESH 3 SULPHUR 34 40	26-25   STEEL 26	27-30	26-29 30-33 60	3
2 SALTY 4 MINERAL  PAMPING TEST METHOD 10 PUMPING RATE	1-14 DURATION OF PUMPING		26-29 30-33 60	
STATIC WATER LEVEL 25	GPM	10	LOCATION OF W	
LEVEL END OF WATER LEVE	LS DURING  2 TRECOVERY  30 M'NUTES   45 MINUTES   60 MINUTES	IN DIAGRAM	BELOW SHOW DISTANCES OF WI INDICATE NORTH BY ARROW.	ELL FROM ROAD AND
	070 070, 070,	1	11'	<b>1</b>
Q GIVE PATE	AT WATER AT END OF TEST 42			
SHALLOW DEEP SETTING	43-45 RECOMMENDED 46-49 PUMPING PATE COD 9 GPM	36	1	'
set sjeeter et 30 ft. wi				OE I
FINAL  STATUS  WATER SUPPLY  OBSERVATION WELL  TEST HOLE	5 ABANDONED, INSUFFICIENT SUPPLY  6 ABANDONED POOR QUALITY  7 UNFINISHED			
OF WELL 4 RECHARGE WELL  55-56 1 DOMESTIC 5	☐ COMMERCIAL			
WATER 1 I STOCK 1 I I I I I I I I I I I I I I I I I I	□ MUNICIPAL □ PUBLIC SUPPLY	ļ		01.3'
USE VI • □ INDUSTRIAL . □ OTHER	COOLING OR AIR CONDITIONING  9  NOT USED		<i>W.</i> (1. –	
METHOD CABLE TOOL CONVENTIONA	6 C BORING		W.H. L.	<i>3</i> :
OF 4 PROTARY (REVERSE)  ROTARY (AIR)  THE PROTARY (AIR)	4 DAIVING P			
NAME OF WELL CONTRACTOR	LICENCE NUMBER	DRILLERS REMARKS	CONTRACTOR 59-82 DATE-RECEI	
Ramon H. CAsselman	1505	SOURCE DATE OF INSPECTION	1505 06	51179"
ADDRESS Williamsburg, Ontario NAME OF DRILLER OR BORER  Parties of Contractor  Stanture of Contractor	LIGENCE NUMBER	S REMARKS	INSPECTOR	
SIGNATURE OF COMPACTOR	! ! !	OFFICE C SHEWNES	-	
MINISTRY OF THE FAMILIER		0		*
MINISTRY OF THE ENVIRON	IMENT COPY			FORM NO. 0506-4-77

Intario	1. PRINT ONLY 2. CHECK 🗵 CO	N SPACES PROVIDED	5801933		12 13
Storm	ont	TOWNSHIP, BOROUGH, CITY, TOWN VILLAGE  COTTWALL	CON. BLOCK, TRACT, SURVEY,	ETC WAS 10	006
		18.0.5.99	Cornwell, Ontario	DATE COMPLETED 9	8-53 YR. 7'
	MOST	LOG OF OVERBURDEN AND BEDR	OCK MATERIALS (SEE INSTRUCTIONS)		
SENERAL COLOUR	COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH FROM	· FEET
Brown	Topsoil		Loose packed	0	2
Grey	Clay	Boulders	Hard packed	2	21
Brown	Gravel	Sand, clay	Cemented	21	27
Grey	Limestone	Rock	Hard	27	123
				1	

(31) CAD261927,7779 100,2	1/12/05/13/73 6/02/76/1/12/86	25 19/232/5/2173		<del></del>
32	32	43	54	
WATER RECORD	(51) CASING & OPEN HO	LE RECORD   Z   ISL	OT NO I	AWETER 34-38 LENGTH 39-40
WATER FOUND AT - FEET STORM FRESH 3 SULPHUR 14 MINERAL	INSIDE WALL DIAM MATERIAL THICKNESS INCHES  10-11 1 STEEL 12	DEPTH - HEET W	ERIAL AND TYPE	INCHES FEET  OFFITH TO TOP 41-44 SC  OF SCREEN
15-18 1 FRESH 3 SULPHUR 19 2 SALTY 4 MINERAL	2 T SALVANIZED 3 CONURLIE 4 D OPEN HOLE .188	0 0027	PLUGGING & SE	ALING RECORD
20-23   FRESH 3   SULPHUR 24   Z   SALTY 4   MINERAL	17-18 1   STEEL 19 2   GALVANIZED 3   CONCRETE	20-23 UEP'H FROM	TO MATERIAL 2 0-13 14-17	AND TYPE LEAD PACKER, ETC I
25-24     FRESH 3   SULPHUR 25 2   SALTY 4   MINERAL	24-25 1 LJ STEEL 26		8-21 22-25	
30-33       FRESH 3   SULPHUR 34	0 2 [] GALVANIZED		6-29 30-33 80	
<del></del>	<del> </del>	· · · · · · · · · · · · · · · · · · ·		

71 LL-PUMP 2		LOCATION OF WELL
STATIC WA	SAILER	IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE INDICATE NORTH BY ARROW
O 20 FEET  IF FLOWING. GIVE RATE  RECOMMENDED PUMP TY  O SHALLOW	C 60 FEET C 60	LOT. 7. LOT. 6.
FINAL STATUS / OF WELL	DEEP SETTING 070 FEET RATE -000 LGPM  R	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
WATER ()  USE	DOMESTIC  STOCK  MUNICIPAL  IRRIGATION  PUBLIC SUPPLY  INDUSTRIAL  COOLING OR AIR CONDITIONING  NOT USED	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
METHOD OF 4 DRILLING	CABLE TOOL  CABLE TOOL  CONTROL OF BORING  DIAMOND  CONTROL OF BORING  DIAMOND  DIAM	DRILLERS REMARKS

R	Ramon H. Casselman	1505
2	ADDRESS	
RAC	Williamsburg, Ontario	
岸	NAME OF DRILLER OR BORER	L/CENCE NUMBER
ONT	Dalton Gow.	
Ö	$(MI^{+},)$	ISSION DATE  27 Mo. Septyr. 77

FORM NO. 0506 -4-- 27

### MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

31626

ATER WELL RECORD

Ontario	1. PRINT ONLY 2. CHECK 🗵 CC	IN SPACES PROVIDED  PRECT BOX WHERE APPLICABLE	11	580190	2   58.0	OL GON	
COUNTY OR DISTRICT	mont	TOWNSHIP, BOROUGH, CITY		3	G CON., BLOCK, TRACT.		004
TOWNER ISLIBITION SIL				ranch Road	, Cornwall, Or	DATE COMPLETED	OG 40-53
		7.9.0		P. P. A. T. A.	RC BASIN CODE		O. YR III
		OG OF OVERBURDEN	AND BEDRO	26	30 31		47 
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATE	ERIALS		GENERAL DESCRIPTION	) N	DEPTH FEET
Brown	Topsoil			pi	cked	0	1
Grey	Clay	Boulders		bs	rd packed		21
Grey	Clay Limestone	Sand, Grav	rel		mented	2.	
	ALAS VALS	ROCK		h	rd	25	9 65
32   10   WATE   10   WATE	FRESH 3 SULPHUR SALTY 4 MINERAL  FRESH 3 SULPHUR 19  SALTY 4 MINERAL  FRESH 3 SULPHUR 24  SALTY 4 MINERAL  FRESH 3 SULPHUR 25  SALTY 4 MINERAL  FRESH 3 SULPHUR 25  SALTY 4 MINERAL  FRESH 3 SULPHUR 34  D D D PUMPING RAIL  D D PUMPING RAIL  SALTY 4 MINERAL  FRESH 3 SULPHUR 34  D D D PUMPING RAIL  SALTY 4 MINERAL  FRESH 3 SULPHUR 34  D D D PUMPING RAIL  SALTY 4 MINERAL  FRESH 3 SULPHUR 34  FRESH 3 SULPHUR 34  D D D PUMPING RAIL  SALTY 4 MINERAL  FRESH 3 SULPHUR 34   INCHES  10-11  2	PEN HOLE R  WALL DITHICKNESS FRO  17-18  NG 17-18 MPING COVERY 50 MINUTES 35-37 CIRC FEET TEST 42 CDUDY 44-43 GPM	#3 ECORD  EPTH - FELT  M TO  13-16  27-30	SA OPENING (SLOT NO.)  WATERIAL AND TYPE  O	ING & SEALING R  MATERIAL AND TYPE  OF WELL  ICES OF WELL FROM RC	FEET FEET FEET FEET FEET FEET FEET FEET	
FINAL STATUS OF WELL STATUS OF WELL STATUS OF WATER USE	TWATER SUPPLY  I OBSERVATION WELL  TEST HOLE  TEST HOLE  DOMESTIC  DOMESTIC  TICLE  TOMESTIC  INDUSTRIAL  OTHER	B ABANDONED, INSUFFIC  4 ABANDONED POOR OUA  7 UNFINISHED  5 COMMERCIAL  6 MUNICIPAL  7 PUBLIC SUPPLY  8 COOLING OR AIR CONDITION  9 NOT USE	NING		N.4' iles to	C PAUTS C	o R VERS
METHOD OF 4 DRILLING	CABLE TOOL CABLE TOOL ROTARY (CONVENT) CAPTURE ROTARY (REVERSE) AIR PERCUSSION	6 ☐ BORING  ONAL) 7 ☐ DIAMOND  4 ☐ JETTING  9 ☐ DRIVING		Sec. 1	" BRANC	# RD.	
NAME OF DALLER OF	CAsselman  Phones, Ontario  Calton Gow/	LICENCE	NUMBER	DATA SOURCE  D DATE OF INSPECTION  REMARKS:	1505	DATE RECEIVED 608	7 '( ***** ***
SIGNATURE OF CONT	• • • • • • • • • • • • • • • • • • •	SUBMISSION DATE	e , 77		ť ,		WI

MINISTRY OF THE ENVIRONMENT 3/G/2 🌶 The Ontario Water Resources Act 15801454. 2. CHECK X CORRECT BOX WHERE APPLICABLE TOWNSHIP, BOROUGH, CITY OUNTY OR DISTRICT <u>007</u> STORMONT CORNWALL LONG DAULT YR. 74 DAY 04 NO. 10 ADLINE RD. RR. 41 9 2004 0230 LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS) OTHER MATERIALS GENERAL DESCRIPTION GENERAL COLOUR COMMON MATERIAL FROM то BROWN 30 BOULDERS HARD Ó HARD PAIN GREY 30 575 55' 11 LAYERED 75' - MESTONE **CASING & OPEN HOLE RECORD** WATER RECORD 51 DEPTH - FEET WALL THICKNESS INCHES KIND OF WATER MATERIAL AND TYPE FROM 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL 1 RESTEEL I ☐ FRESH 3 ☐ SULPHUR ☐ CONCRETE 61 **PLUGGING & SEALING RECORD** 2 SALTY 4 MINERAL DEPTH SET AT - FEET STEEL

GALVANIZED

CONCRETE 1 G FRESH 3 SULPHUR
2 SALTY 4 MINERAL FROM  $\infty 7$ 4 POPEN HOLE

1 STEEL

2 GALVANIZED I G FRESH 3 SULPHUR
2 SALTY 4 MINERAL 10-2 22-25 1 | FRESH 3 | SULPHUR 2 | SALTY 4 | MINERAL 1. IT CONCRETE 26-25 30-33 Z SALTY 4 D OPEN HOLE LOCATION OF WELL L 15-16 HOURS 0017-1 2 | BAILER PUMPING
PECOVERY IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW. STATIC LEVEL WATER LEVELS DURING <u>0</u>2 ( "-21 95 10001 40 PUMP SETTING 66 FEET OOO.S GPM./FT. SPECIFIC CAPACITY FEET RATEO O/O OBSERVAT<u>io</u>n 6 ABANDONED, POOR QUALITY STATUS OF WELL 7 UNFINISHED a. 🗋 RECHA .S COMMERCIAL

O CHUNTEIPAL

TO PUBLIC SUPPLY WATER USE() it St. Cooling OR AIR CONDITIONING 9 🗌 NOT USED CABLE **METHOD** 2 ROTARY (COM 3 ROTARY (REVE ☐ DIAMOND OF F ROTARY (AIR)

AIR PERCUSSION 9 DRIVING DRILLING DRILLERS REMARKS TRACTOR ROY'S MACHINE SHOP LICENCE HUMBER ONLY <u>្</u>ស 75 ST W. CORNWALL ONT. OFFICE USE 15/ LICENCE NUMBER W١ FORM 7 MOE 07-09 MINISTRY OF THE ENVIRONMENT COPY

### MINISTRY OF THE ENVIRONMENT

$(\infty)$	The Ontario Water Resources Act				
<b>B</b> )	WATER WELL RECORD				
Intorio					

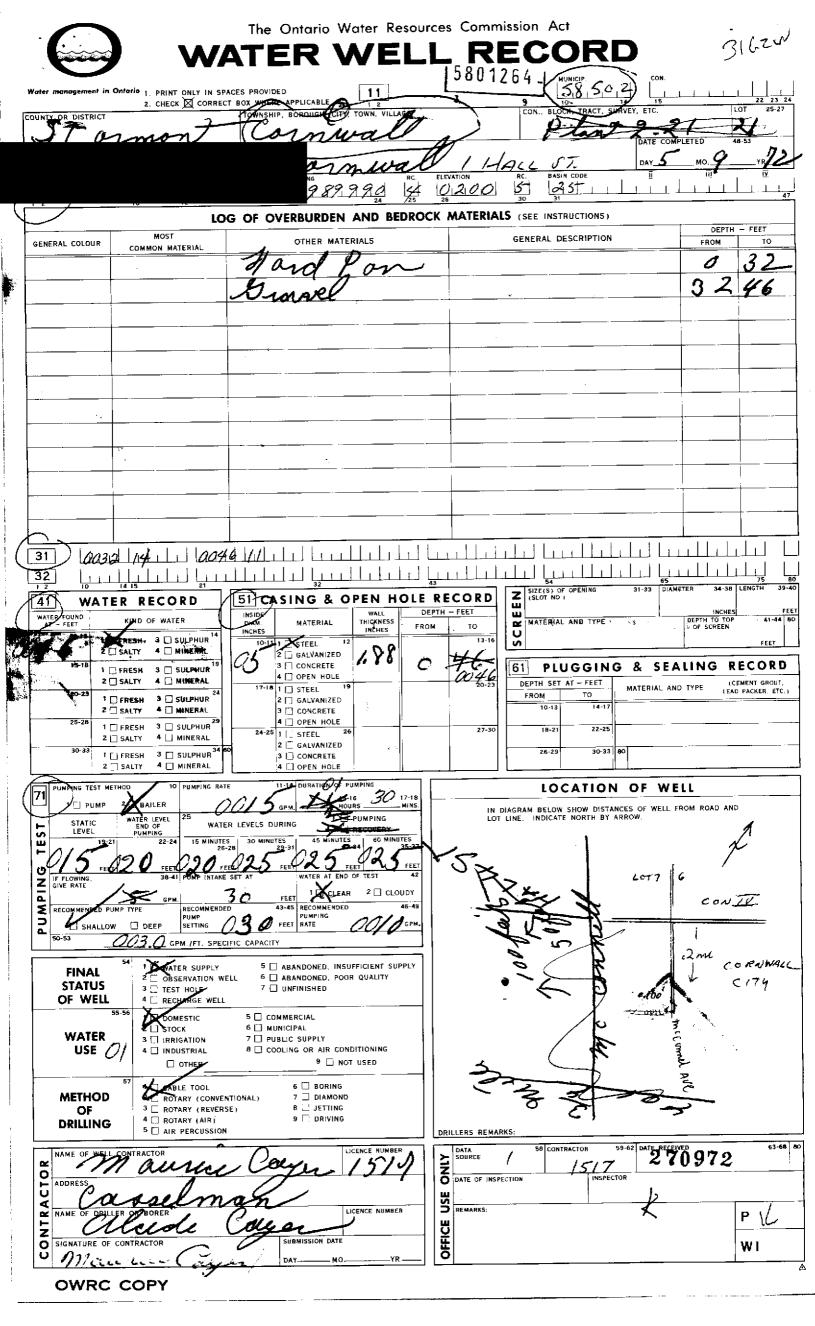
316	-2W
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Ontario 5801367 585,01 2. CHECK 🗵 CORRECT BOX WHERE APPLICABLE COUNTY OR DISTRICT TOWNSHIP, BOROUGH, CITY, TOWN CORN WALL STOR MONT 3220 Mc CONNELL RMWAVI LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS) MOST COMMON MATERIAL GENERAL COLOUR GENERAL DESCRIPTION HARD PAN BOULDERS GREY Ø 42 LIME STONE OWRC (41) WATER RECORD (51) **CASING & OPEN HOLE RECORD** KIND OF WATER MATERIAL FRESH 3 STEEL 2 SALTY 4 MINERAL 188 0 0042 I FRESH 3 SULPHUR
2 SALTY 4 MINERAL 3 [] CONCRETÉ 61 PŁUGGING & SEALING RECORD 4 D OPEN HOLE 1 [] STEEL 20-2 DEPTH DET AT - FEET 1 D FRESH
2 D SALTY 3 | SULPHUR
4 | MINERAL MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, LTC.) 2 GALVANIZED 3 [] CONCRETE 4 [] OPEN HOLE 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL · □ STEEL 27-30 2 🔲 GALVANIZED 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL 3 CONCRETE LOCATION OF WELL PUMP 2 BAILER IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW PUMPING 2 | RECOVERY 7ES 60 MINUTES 32-34 FEET 022 021 THE 022 FEET 50 I 🗆 CLEAR RECOMMENDED PUMP TYPE P TYPE RECOMMENDED 43-45
PUMP 40 FEET

D Q L . 2 GPM./FT. SPECIFIC CAPACITY RECOMMENDED PUNPING O 0008 SHALLOW DEEP FEET WATER SUPPLY S ABANDONED. INSUFFICIENT SUPPLY 230 **FINAL** 6 ABANDONED POOR QUALITY
7 UNFINISHED 2 OBSERVATION WELL **STATUS** 3 TEST HOLE
4 RECHARGE WELL OF WELL 1 DOMESTIC 5 COMMERCIAL Z STOCK
3 RRIGATION 6 MUNICIPAL
7 PUBLIC SUPPLY WATER O for their COOLING OR AIR CONDITIONING

9 NOT USED USE 4 | INDUSTRIAL ☐ OTHER information CABLE TOOL 6 D BORING **METHOD** POTARY (CONVENTIONAL)
ROTARY (REVERSE) 7 DIAMOND 8 🔲 JETTING 4 | ROTARY (AIR) **DRILLING** 9 🔲 DRIVING 5 AIR PERCUSSION . RILLERS REMARKS: LICENCE NUMBER DATA SOURCE 0 105 74 CAYER WELL DRILLING 1517 OFFICE SIGNATURE OF CONTRACTOR Maurin Ca

MINISTRY OF THE ENVIRONMENT COPY





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The Ontario Water Resources Commission Act

ATER WELL RECORD 58012614 2. CHECK CORRECT BOX WHERE APPLICABLE TOWNSHIP, BOROUGH, CITY, TOWN STORNONT CORNWALL LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS) GENERAL COLOUR OTHER MATERIALS COMMON MATERIAL GENERAL DESCRIPTION FROM BROMW CLAY SOFT D GREY BOULDERS PACKED 19 LIME STONE LAYERED 0015605 1 0019211/3 0050215 10 14 15 21 32 43 54 65 75
WATER DECORD 7 SIZE(S) OF OPENING 31-33 DIAMETER 34-38 LENGTH 32 SIZE (SLOT NO.)

MATERIAL AND TYPE

O 51 CASING & OPEN HOLE RECORD WATER RECORD WALL THICKNESS INCHES KIND OF WATER MATERIAL FRESH 3 🗆 SULPHUR FEET GALVANIZED 0022 1 🔲 FRESH 3 ☐ CONCRETE 3 🗌 SULPHUR 61 PLUGGING 8 SEALING RECORD 2 ☐ SALTY 4 🗍 MINERAL 4 [ LOPEN HOLE DEPTH SET AT - FEET 1 STEEL 3 □ SULPHUR 4 □ MINERAL ¹ ☐ FRESH 0050 GALVANIZED 2 🗌 SALTY CONCRETE 22 OPEN HOLE D 3 SULPHUR 4 | MINERAL 2 🔲 SALTY I □ STEEL 2 🗌 GALVANIZED 1 TRESH 3 ☐ SULPHUR 3 ☐ CONCRETE 2 SALTY PING TEST METHOD LOCATION OF WELL 2 BAILER WATER LEVEL END OF PUMPING 22-IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW PUMPING WATER LEVELS DURING RECOVERY 5 GPM./FT. SPECIFIC CAPACITY WATER SUPPLY **FINAL** 5 ABANDONED, INSUFFICIENT SUPPLY OBSERVATION WELL 6 ABANDONED, POOR QUALITY **STATUS** 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 7 UNFINISHED OF WELL SOUTH BRHNEH DOMESTIC 5 COMMERCIAL Cornwall centre to STOCK 6 MUNICIPAL WATER 3 | IRRIGATION 7 D PUBLIC SUPPLY 0 USE 4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING OTHER 9 - NOT USED COXWALL 6 D BORING 1 CABLE TOOL METHOD ² ☐ ROTARY (CONVENTIONAL) ACCOMNEL OF ROTARY (REVERSE) DRILLING POTARY (AIR) 9 DRIVING AIR PERCUSSION ERS REMARKS: ZNO ONI≺ 030872 609 OFFICE USE REMARKS  $C_{\infty}$ :



### The Ontario Water Resources Commission Act

### WATER WELL RECORD

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	Water management in Ontario 1. PRINT ONLY IN 2. CHECK ☑ CORR	ECT BOX WHERE APPLICABLE	5801213	MUNICIP. CON. CON. CON. CON. CON. CON. CON. CON	1 99
	STOR MONT	CORN WALL		DCK, TRACT, SURVEY, ETC.	LOT 25-27
	TOWNER (SUBMANE SIDET). 20 47		WWALL I	DATE COMPLETE DAY 15	
		2 COR,	HC. ELEVATION RC. BAS 4 0240 5 2	SIN CODE	MOYR
		OG OF OVERBURDEN AND BED	<u>r 30 3</u>		47
	GENERAL COLOUR MOST COMMON MATERIAL	OTHER MATERIALS		ESCRIPTION	DEPTH - FEET FROM TO
	BROWN Top soil		50	fT	0 5
	GREY HARD PAN		fin.	RD	5 13
	grey Rock		hA.	RD .	13 40
22.7					
1					
Ţ	31 QGQSGQQ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	31214 1 0044776 1			1.1.1.1
	32 10 14 15 21	32			
	41 WATER RECORD	STICASING & OPEN HOL	E RECORD  DEPTH - FEET  DEPTH - FEET	OPENING 31-33 DIAMETER	75 80 34-38 LENGTH 39-40
	AT - FEET KIND OF WATER	MATERIAL THICKNESS	ROM TO MATERIAL A		INCHES FEET TO TOP 41-44 80 CREEN
9	15-18 1 FRESH 3 5 SULPHUR	5 GALVANIZED 3 CONCRETE 2,44	) -62 N		FEET
}	2 SALTY 4 MINERAL  20-23 1 FRESH 3 SULPHUR	4 ☐ OPEN HOLE  17-18 ☐ STEEL 19	20-23 DEPTH SET AT	MATERIAL AND TYPE	(CEMENT GROUT,
-	2 SALTY 4 MINERAL 25-28 1 FRESH 3 SULPHUR	2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	3 FROM 10-13	14-17	LEAD PACKER, ETC.)
-	2 SALTY 4 MINERAL  30-33 I FRESH 3 SULPHUR 34 BQ	24-25 1 ☐ STEEL 26 2 ☐ GALVANIZED	27-30 18-21	22-25	
Ł	2 SALTY 4 MINERAL	3 CONCRETE 4 OPEN HOLE	26-29	30-33 80	
	71 PUMPING TEST METHOD 10 PUMPING RATE	O GPM	LOCA	ATION OF WELL	
- 14	PUMPING	LEVELS DURING 2 PUMPING	IN DIAGRAM BELOW SH LOT LINE. INDICATE N	OW DISTANCES OF WELL FROM ROAD ORTH BY ABROW.	AD AND
'	008 19-21 020 22-24 15 MINUTES 26-28 020	30 MINUTES 29-31 45 MINUTES 32-34 020 020		10	
	IF FLOWING, 38-41 PUMP INTAKE SE	T AT WATER AT END OF TEST 42			
:	RECOMMENDED PUMP TYPE RECOMMENDED	FEET CLEAR 2 CLOUDY  43-45 RECOMMENDED 46-49 PUMPING 2 46-49			1 ~
Ľ	SHALLOW DEEP SETTING COSTS	30 FEET RATE 0005 GPM.	0 1	ر المعرف المعرف	
Γ	FINAL SA WATER SUPPLY	5 ABANDONED, INSUFFICIENT SUPPLY		Littley John	li li
-	STATUS  STATUS  OF WELL  STATUS  CONTROL  CONTRO	6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED			
	55-56 DOMESTIC	5 COMMERCIAL 6 MUNICIPAL		B 152 m	
	WATER  3   IRRIGATION  4   INDUSTRIAL	7 PUBLIC SUPPLY 8 COOLING OR AIR CONDITIONING		Con	
$\vdash$	57 1 OTHER	9 🗆 NOT USED		•	**
	METHOD  CF  CABLE TOOL  CONVENTION  ROTARY (CONVENTION  ROTARY (REVERSE)	6 ☐ BORING  NAL) 7 ☐ DIAMOND  8 ☐ JETTING		_	
L	DRILLING  4   ROTARY (AIR)  5   AIR PERCUSSION	9 DRIVING	DRILLERS REMARKS:	2	
0	NAME OF WELL CONTRACTOR	LICENCE NUMBER	DATA 58 CONTRACT	OR 59-62 DATE RECEIVED 10"	71 63-68
7.0	ADDRESS	10 L	SOURCE / DATE OF INSPECTION	INSPECTOR /	
A O F	NAME OF DRILLER OR BORER	LICENCE NUMBER	REMARKS:	1 Jun	
Z	7	SUBMISSION DATE	OFFICE FICE		P
	OWRC COPY	DAY 15 MO 9 YR 71	<u></u>		WI
C	JYYKG COMY				to

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The Ontario Water Resources Commission Act

`asin	125t 1 1 1 1	WATER

asin Last LI WATER WE	LL RE	CORD		G
County or District STORMONT	.Township, Villag	ge, Town or City	COB NWAI	I.
Con	Date completed	<u>e</u>	Dec	1960
	iress S	SOUTH BRANC	H RD	*************************
Casing and Screen Record		Pumpir	ig Test	
Inside diameter of casing. 6 u	Static level	13.!		
Total length of casing	Test-pumping	g rate	5	G.P.M.
Type of screen	Pumping leve	L	40	
Length of screen	Duration of to	est pumping	1 hr	
Depth to top of screen	Water clear o	r cloudy at end of	test clea	ar
Diameter of finished hole	Recommende	d pumping rate	5	G.P.M,
				w ground surface
Well Log				r Record
Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
HARD PAN & BOUIDERS	<del></del>	15_		
	<del></del>	97	95	fresh
For what purpose(s) is the water to be used? FARM		Location o	of Well	
	In diag	ram below show	distances of well	l from
Is well on upland, in valley, or on hillside?	road an	d lot line. Indi	cate north by a	arrow.
Drilling or Boring Firm ROY & SON REGD		<b>&lt;</b> /	Very	
Address Cornwall, Ont		louth <b>RR</b> I	PNCH .2	- 600 by mi
Licence Number 3070	-	Color of the second sec		
Name of Driller or Borer Roger A. Roy		CON		LOT
Address 706 kilomonth of 6		11/		4
Address 706 Eleventh St F, cornwall, unt.		, ,	i i	,
(Signature of Licensed Drilling or Boring Contractor)				
Form 7 15M-60-4138				Fla
OWRC COPY				1/2

And I want to the same of the	WATER RESOURCES
UTVP1881 \$ 5, 1,9,0,0,0 E	316/2W   58 No 35/7.
15 dx 7 4 9 19 12 4 12 15 N Ontario Water Reso	surces Commission Act
Elev.   5 R   0   2   2   0   WATER WEL	CNTARIO VOTES
2.12.5	Cownship, Village, Town or City Command
	Date completed 2 9 1964
	(day month year)
	lress
Casing and Screen Record	Pumping Test
Inside diameter of casing 5 which the	Static level 22
Total length of casing no Casing	Test-pumping rate
Type of screen	Pumping level
Length of screen	Duration of test pumping 2 frours
Depth to top of screen	Water clear or cloudy at end of test Leaven
Diameter of finished hole 5 modes	Recommended pumping rate 7 G.P.M.
	with pump setting of
Well Log	Water Record
Overburden and Bedrock Record	From To Depth(s) at Kind of water which water(s) ft. found sulphur)
This Well was 28 leet deen	1 30 Sulling
on Rock and well	757000
Just toda.	28 30
- Class and France	50 60
· · · · · · · · · · · · · · · · · · ·	
Donald & 18 18 No 205127	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
For what purpose(s) is the water to be used?	Location of Well
)	In diagram below show distances of well from
Is well on upland, in valley, or on hillside? Hellede	road and lot line. Indicate north by arrow.
Drilling or Boring Firm	
Address	/.35
Licence Number / 2 4 2	1
Name of Driller or Borer Taseric Beurrion	
Name of Driller or Borer area Beurdon	
Date 3 / 9 / 1 9 6 4	
acene Bourdon	
(Signature of Licensed Drilling or Boring Contractor)	
Form 7 15M-60-4138	:
O W R C COPY	

Basin 25 WATER WE County or District Stormont	31 G-/2 sources Commission LL REC	ORD	Cornwal	Nº 270
Con. 4 Lot. 6	Date completed	(day	1966 month	year)
	ress R.R.#	2 , Corn	wall, Ont	• •
Casing and Screen Record		Pumpin	g Test	
Inside diameter of casing 6**	Static level	10"		
Total length of casing 19'10"	Test-pumping ra	te 20		G.P.M.
Type of screen	Pumping level	13'		
Length of screen	Duration of test p			
Depth to top of screen	Water clear or cle	oudy at end of	test Clear	•
Diameter of finished hole 6"				G.P.M.
				ow ground surface
Well Log			T	r Record
Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Hard pan Limestone	0'	19'10"		
Diffescouse	19'10"	93'	931	FRESH
For what purpose(s) is the water to be used?  General use. House	In diagram	Location of below show of line Indi	of Well distances of well cate north by	I from
Is well on upland, in valley, or on hillside? Valley  Drilling or Boring Firm Roy & Son Reg'd		<b>1</b>	1/0	arrow.
Address 303 Water St. W., Cornwall, Ont		£	x	
Licence Number 2214	•	V'	\$ \$	
Name of Driller or Borer Roger A. Roy Address 706 Eleventh St., Cornwall, Ont		,	7    j	
Date DEC 15 1966				
(Signature of Licensed Prilling or Boring Contractor)	SOUTH	BRANCA	Y RP	And the same of th
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Basin 7.5 Stemond - County of District Stemond - Con. IV Lot \$500				
Con. IV Lot 35 5	Date completed.	e, Town or City.	Dec	1964
		(day	month  L Out	year)
Casing and Screen Record	iress.			
Inside diameter of casing	Statio Israi		ng Test	
Total length of casing.				₩ G.P.M.
Type of screen	1		24	
Length of screen				
<del></del>	Duration of te	est pumping	10	nee
Depth to top of screen  Diameter of finished hole			of test	
Diameter of Imished hole	ļ.		·	
·	with pump se	tting of		w ground surface
Well Log				r Record
Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
- Naudsan Limestore		<u> /2</u>		
For what purpose(s) is the water to be used?		Location	of Well	
Home	In diagr	ram below show	distances of wel	l from
Is well on upland, in valley, or on hillside?	road an	nd lot line. In	dicate north by	arrow.
Drilling or Boring Firm Pay a Son Reg of	. ا			
P.O. Box 1132		2/10		·
Address 3260 Johns lon and		7/0		
Cornwall out		-		
Licence Number /352		8		
1 2	EUMERS	1		
Address Some		OCT PRO	0 3 A D.	
Date Dec 25/64		ru Gogoro	7 ( T 17)	RANT ORNERS
(Signature of Licensed Drilling or Porng Contractor)			•	
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	ress	Co	BHUBLL	
Casing and Screen Record		Pumpi	ng Test	
Inside diameter of casing.	Static levei			,
Total length of casing	Test-pumping 1	rate	/3	G.P.M.
Type of screen	Pumping level			
Length of screen	ļ		•	5
Depth to top of screen	Water clear or c	cloudy at end o	of test	( CE AR
Diameter of finished hole 5				5G.P.M.
	with pump setti	ng of	feet belo	ow ground surface
Well Log	<del></del>			r Record
Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
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For what purpose(s) is the water to be used?		Location	of Well	
FAIM			distances of wel	
Is well on upland, in valley, or on hillside?	road and	lot line. In	dicate north by	arrow.
Drilling or Boring Firm				7/1
A BourDon	7			
Address CogiraciaLL	2			•
Licence Number 1707				Tzad.
Name of Driller or Borer A Book Dog		50471	4 BaneyaD	1200
Address			1 MI.	`
				<del>)</del>
Date Have Breaden (Signature of Licensed Drilling or Boring Contractor)		25		
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Con. IV Lot 4	Date comple	mage, . ted .	own or City. در	Nov	1964
			(uas	month	year)
	iress	<u> </u>	rece		
Inside diameter of casing 5		<del></del> -	<del></del>	ng Test	
Total local for the many				24'	
	Test-pum	- ''			G.P.M.
				60'	
Length of screen  Depth to top of screen				and the formation and a solid	- Re
Diameter of finished hole 5				f test	
Diameter of finished floid					G.P.M.
Well Log	with pum	p settin	g of 🦽 🍝		w ground surface
		<del>.</del>	<del></del>	- <del></del>	r Record
Overburden and Bedrock Record	$\begin{array}{c c} & \mathbf{Fro} \\ & \mathbf{ft} \end{array}$		To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty,
le Cay	0		/2		sulphur)
- Karolpan			28		
	<del>2</del> &		63	€ 3	Fush
			<del></del>	<del> </del>	
				<del>                                     </del>	
For what purpose(s) is the water to be used?					
To what purpose(s) is the water to be used?	<b>T</b>	1	Location		
Is well on upland, in valley, or on hillside?	road	nagram and 1	ot line. Indi	distances of well icate north by a	from arrow.
Drilling or Boring Firm	1	ŀ		,	À
3260 Johnston and	1				<i>7</i>
Address P. D. Box 1132		•			1
le oonwall					c _ø
Name of Driller or Borer Raymond Suydan.  Address	we 2s	<del>←3</del>	904		भी
Name of Driller or Borer Raymand Sugala.	i A ···				
Address Conwall		15	out HI	1.10.7	
Date 2007 21/64					
- race					11
(Signature of Licensed Drilling or Boring Contractor)					
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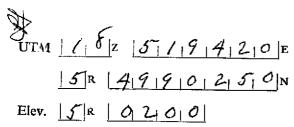
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The Water-well Drillers Act, 1954

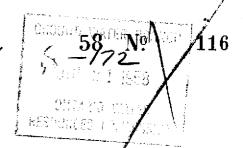
Department of Mines

### Water-Well Record

County or Territorial District	1 1 x		hip.	, Village, Town or	City	22.27 /
			n V	Village, Town or (	ity) Carrier (	marie 1
			Add	dress Canada	Carre	1
(day)	(month)	(year)	0			
Pipe and Casing	Record		-		Pumping Test	<u> </u>
C	1		Ī		7 7	· · · · · · · · · · · · · · · · · · ·
Casing diameter(s)	i i	*************	Stat	tic level7	test of gal	6 E
Length(s)	LAArthrij.i	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Pun	nping rate	for	falu
Length of screen			Pun Dur	ation of test	Lucia	4
	· · · · · · · · · · · · · · · · · · ·				of the state of th	<b>**</b> **********************************
Well Log					Water Record	
Overburden and Bedrock Record	From ft.	To ft.		Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Blue Class		7 2	•			<del> </del>
LIMESTONE	32'	13	-,	18'	61'	Fresh
	- <u> </u>	ļ				
		<del></del> -	╌┾	<u> </u>		
			-			
For what purpose(s) is the water t	o be used?					holo
If ous			: 4		ation of Well	
Is water clear or cloudy?					show distances of Indicate north	
Is well on upland, in valley, or on b				W. W. COXII		oy allow.
	diag.			Marine Carlo San and San Carlo Marine San Anna San	1076	1
Drilling firm Address				,	80 23	7
		********		Ų	CON3 LOTE	<b>^</b>
Name of Driller	James	6-7		30	FF	# ₁ 7t The
Address 20 /	and hear	Section A	American control of the control of t			
	485791885554564685556485654					
icence Number						
I certify that the fo statements of fact a						
and the same of th	13.	1			200	
Date 30 Le Gran	ature of Licensee	on			7077	
a 5					1/41	
		7	<del>         </del>	++		
		. •		十十乙のピババ	W/ # 1 /	



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The Water-well Drillers Act, 1954
Department of Mines

V	Water-	We	ell	Reco	rd	
			hip, in V	Village, Town or	(City) Lon	wall
Date completed(day)	July (month)	/95 (year)	S.	ress <u></u>	OHY)	2
Pipe and Casing		(3041)			Pumping Test	
Casing diameter(s) 2	<u>v</u> o		1			
Length(s) 341			Stat.	ic level	4 11- 300 4.1. A	······································
Type of screen	***********************	*********	Pum	ping level	30//	
Length of screen	)		Dura	ation of test	1 Rr	*************************
Well Log			<del>.</del>		Water Record	
Overburden and Bedrock Record	From ft.	To ft.		Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Mordpon & Bolders	0	3 4	<del>-  </del> -			
Gray hime stone	34 /	34		105/1		Fush
				<u> </u>	8,	
		<del></del>	-			
For what purpose(s) is the water to	be used?			Loc	cation of Well	J:
Is water clear or cloudy?	lead		In	diagram below	show distances of	well from
Is well on upland, in valley, or on hi	A		ro	ad and lot line.	. Indicate north 1	by arrow.
Drilling firm Noy & Son	Dus of					
Drilling firm Your Son	el onl				4	
Name of Driller	?	••••			10 10	r
Address Opple / Lu	W	=		EAMER		Hear
Licence Number					50 f 400g	
I certify that the for	egoing					
statements of fact are	10 1					
Date July 3/59 Signal	Teckory ture of Licensee				Professional Control of Control o	
na 5	V				:	
				COBNUHI	, <b>L</b>	

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The Water-well Drillers Act, 1954

Department of Mines

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OROUND WATER BRANCH

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ONTARIO WATER
RESOURCES COMMISSION

Vater-Well Record

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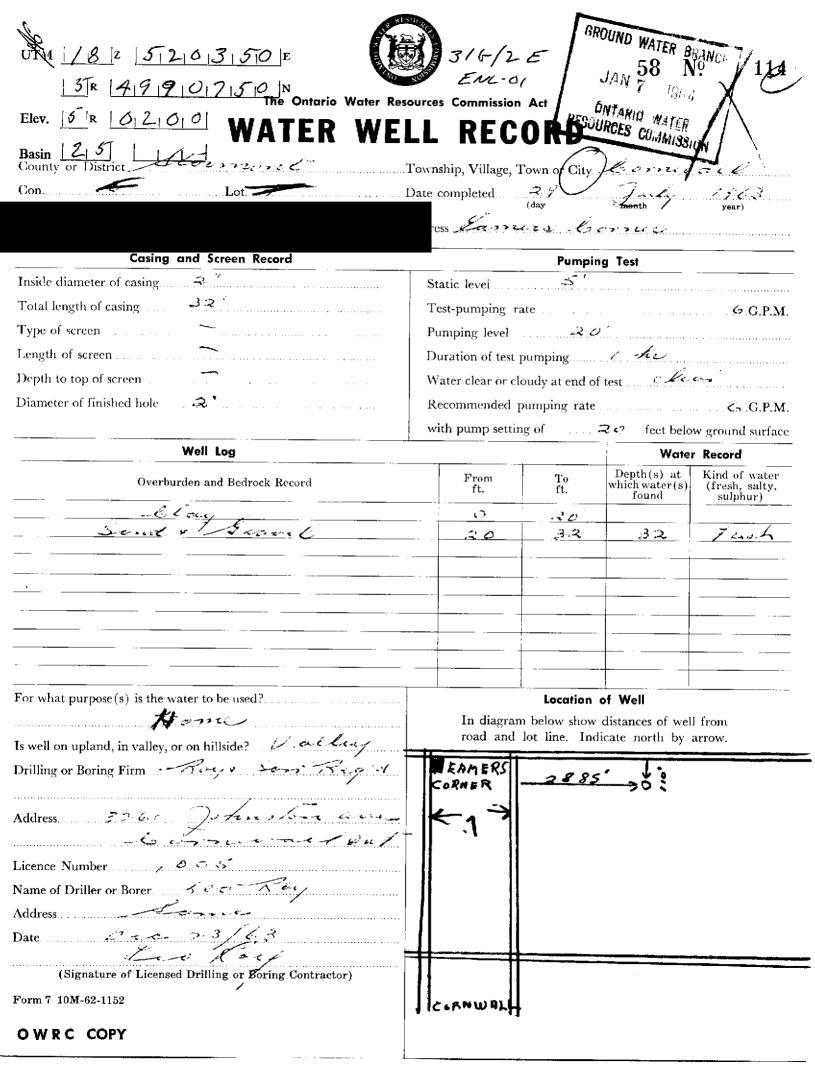
Township, Village, Town or City CORNWALL .Township, Village, Town or City. ddress EAMERS CORNER Date completed ..... (day) (year) (month) **Pumping Test** Pipe and Casing Record Static level ..... Casing diameter(s) ..... Pumping rate ..... 250 ...... Length(s) ..... Type of screen NO SCREE Pumping level ..... Duration of test Length of screen ..... Water Record Well Log Depth (s) at which water (s) Kind of water No. of feet (fresh, salty, or sulphur) From Overburden and Bedrock Record water rises ft. found FRESH For what purpose(s) is the water to be used? Location of Well HOUSLE In diagram below show distances of well from Is water clear or cloudy? CLEAR road and lot line. Indicate north by arrow. Is well on upland, in valley, or on hillside?.. EAMER'S CORNER UPLANIA Name of Driller ...... Licence Number I certify that the foregoing statements of fact are true.

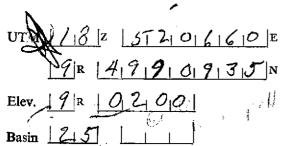
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The Water-well Drillers Act, 1954 Department of Mines

### Water-Well Record

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County or Tomitorial District	Moment.		hip, Village, Town of	City	muel of	
				~34		
			n Village, Town or	Econord So	, Comel	
Date completed (day)						
(day)	(month)	(year)	1957			
Pipe and Casing Record			Pumping Test			
Casing diameter(s)			Static level			
Length(s)		*****************	Pumping rate 45%			
Type of screen			Pumping level			
Length of screen			Duration of test		**************************	
			Daration of test	-	***************************************	
Well Log			Water Record			
			Depth (s)		Kind of water	
Overburden and Bedrock Record	From ft.	To ft.	at which water(s)	No. of feet water rises	(fresh, salty, or sulphur)	
			found		or surprise,	
Clandpan	0	45				
Linden & By Y	45	51	248	33	Tulsky	
		_ <del></del>				
	<del></del>					
	-				<u>-</u>	
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					-	
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			!			
For what purpose(s) is the water	to be used?		Lo	cation of Well		
Haue	***************************************	********	In diagram below		f well from	
Is water clear or cloudy?		Į.	road and lot line		_	
Is well on upland, in valley, or on	hillside?	*******	Ţ			
	. 1 11 10 1	,,,				
Drilling firm Lahelin 4 Address .0.721 C	Jell Rull	۷				
Address	-need			S		
11 0	······································	*********	<u> </u>	10		
Name of Driller Male	Leyer	*******		ુઈ 📗		
Address	**************************		FA	235		
Times No. 1 (12	************************		1.0		Λ.	
Licence Number				. 1.5	1 60	
I certify that the foregoing statements of fact are true.			3.		<del></del>	
Statements of 1act	are true.		3			
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Si	gnature of License	е	ON SWEAT A			
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Basin 25 County or District		Town or City	JULY month	IISSION		
Casing and Screen Record						
Inside diameter of casing.	Pumping Test					
Total length of casing.		Static level /5				
Type of screen	Test-pumping rate 6 G.P.M. Pumping level / 5					
Length of screen		ration of test pumping				
Depth to top of screen						
Diameter of finished hole	Water clear or cloudy at end of test  Recommended pumping rate  G.P.M					
	with pump setti	ng of	⊬u feet held	ow ground surface		
Well Log				r Record		
Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty,		
Ecny Thouspens	U	25	Tound	sulphur)		
Longstone	38	- د د	5 0	Fast		
For what purpose(s) is the water to be used?		Location	of Well			
Is well on upland in valley, or on hillside?	In diagram below show distances of well from road and lot line. Indicate north by arrow.					
Drilling or Boring Firm A Souli Dosy		5	2	/A		
Address Collins Att		- NA		1150		
Licence Number /707	The same of the sa	11/				
Name of Driller or Borer 5 / 1775			-1-5			
Address			1,4	<i>i</i>		
Date		5	/			
(Signature of Licensed Drilling or Boring Contractor)		7				
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WATER RESOURCES DIVISION

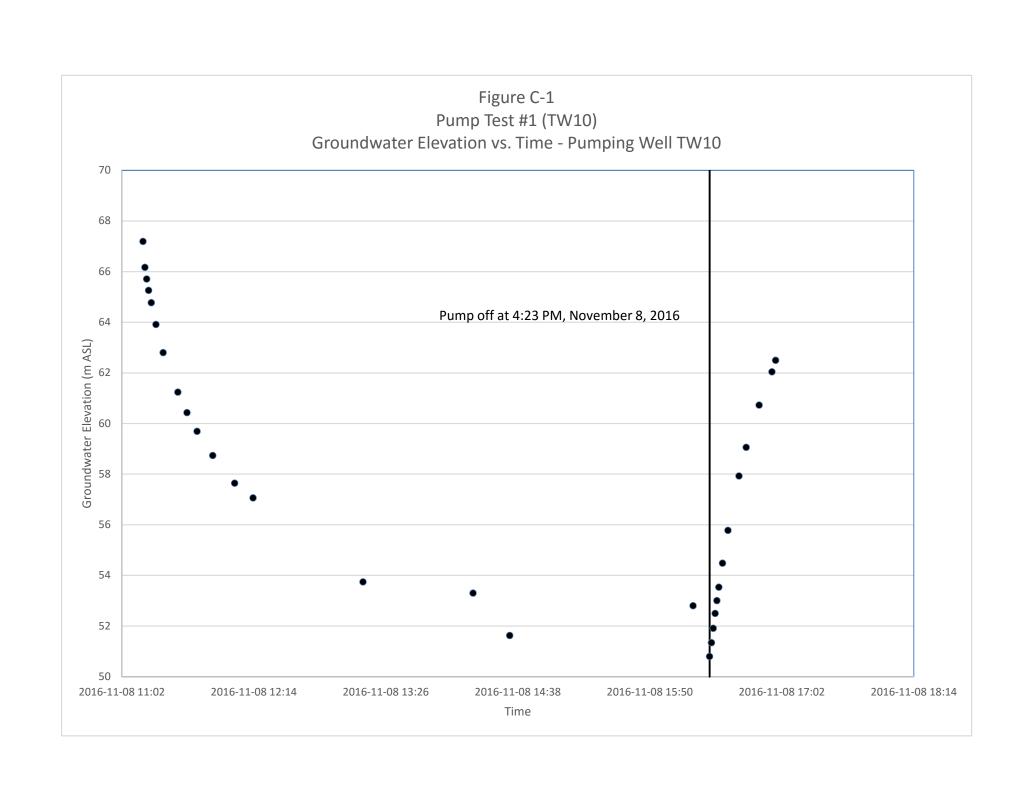
### **Ontario Water Resources Commission Act**

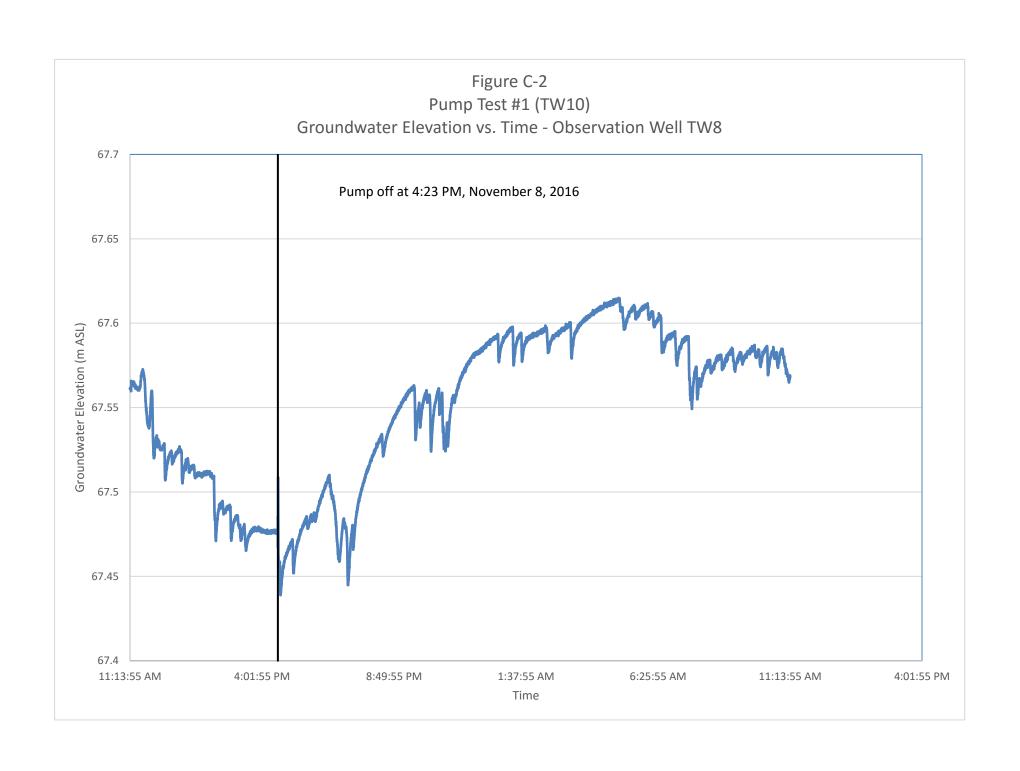
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Basin 2 5 County or District				Chamana	11 15
Con South Branch Polot 2 3th 1	Date co	mpleted	18	7	1969
		م معمد مرحم	(day	month	year)
	ress		u or	vier	,
Casing and Screen Record	Pumping Test				
Inside diameter of casing 5			•		
Total length of casing 44 July				<b>5</b>	
Type of screen	Pun	nping level	<i>4</i>	.5	
Length of screen	Dur	ration of test p	oumping	/	3.6.5.1
Depth to top of screen	Wa	ter clear or clo	oudy at end o	f test	ear
Diameter of finished hole 5 mache	Rec	commended p	umping rate		
	with pump setting of feet below ground sur				w ground surface
Well Log				Water	Record
Overburden and Bedrock Record		From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
Carl and Boden		0	44	68	fresh
France. Rock		44	72		
				1	
			. —		<del></del>
1					
For what purpose(s) is the water to be used?	•		Location	of Well	
		_		distances of wel	
Is well on upland, in valley, or on hillside? Hellsede		road and	iot line. In	dicate north by	arrow.
Drilling or Boring Firm		:			1/2
	:	2			
Address		3			
Licence Number / 2 42	****		5007	A BANKER	
Name of Driller or Borer anene 13 overda	_	A . THE STATE OF T		6	150.
Address 20 Tremel Creat Convall			, K		<i>&gt; &gt; - - - - - - - - - -</i>
Date 18, 7, 1964			7	1. 1.	- <u>u</u> -
arsene Bourdon					
(Signature of Licensed Drilling or Boring Contractor)	;				

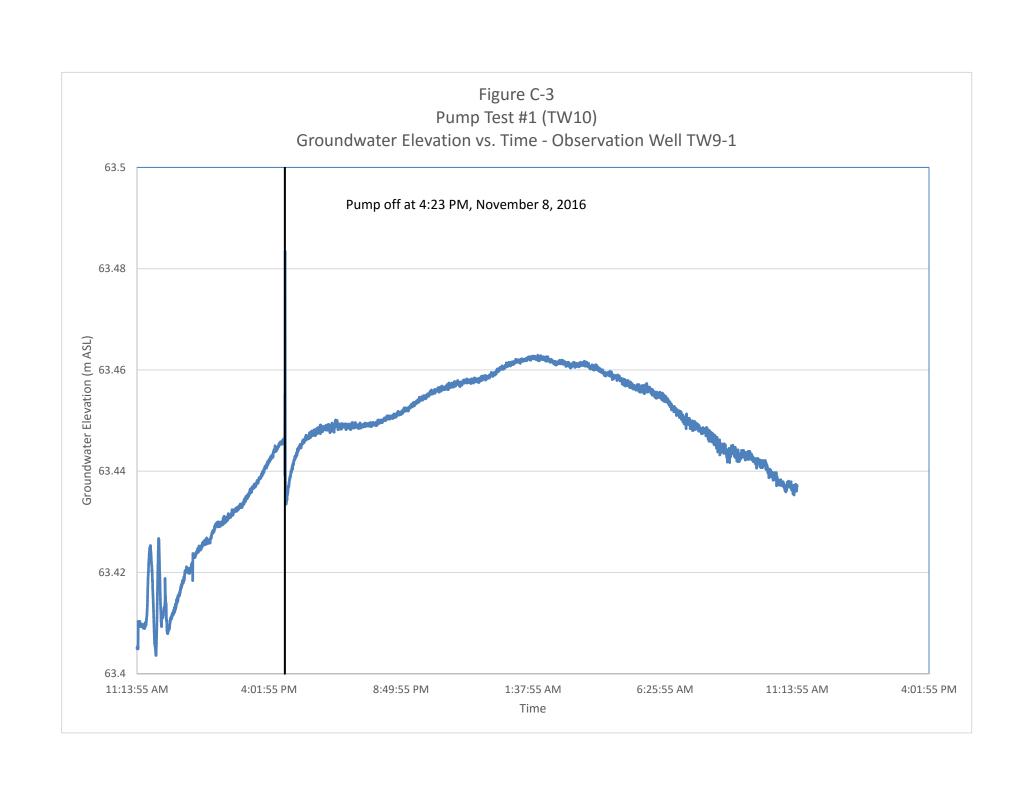
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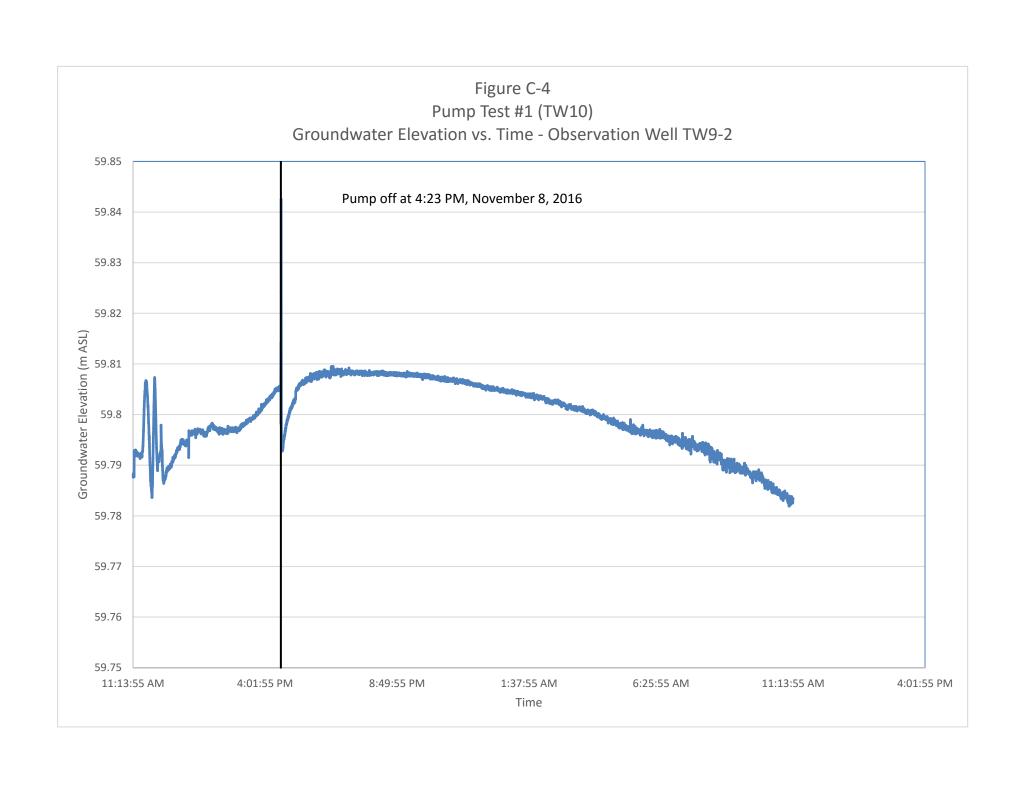
## **APPENDIX C Pump Test Figures**

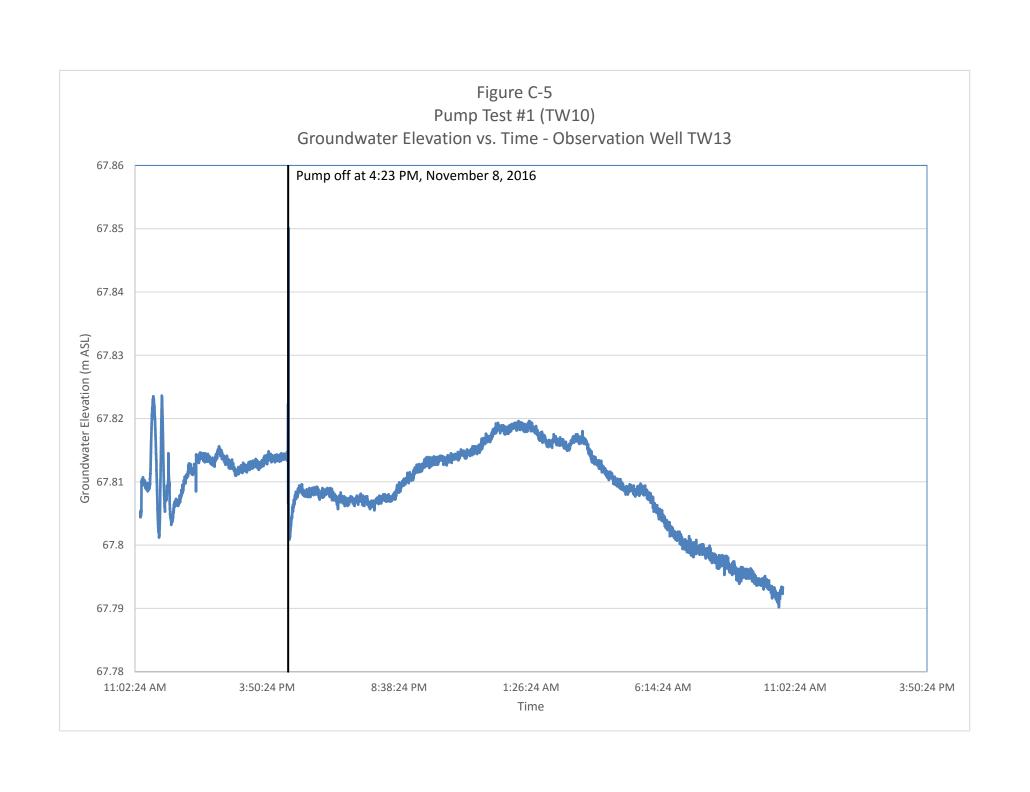


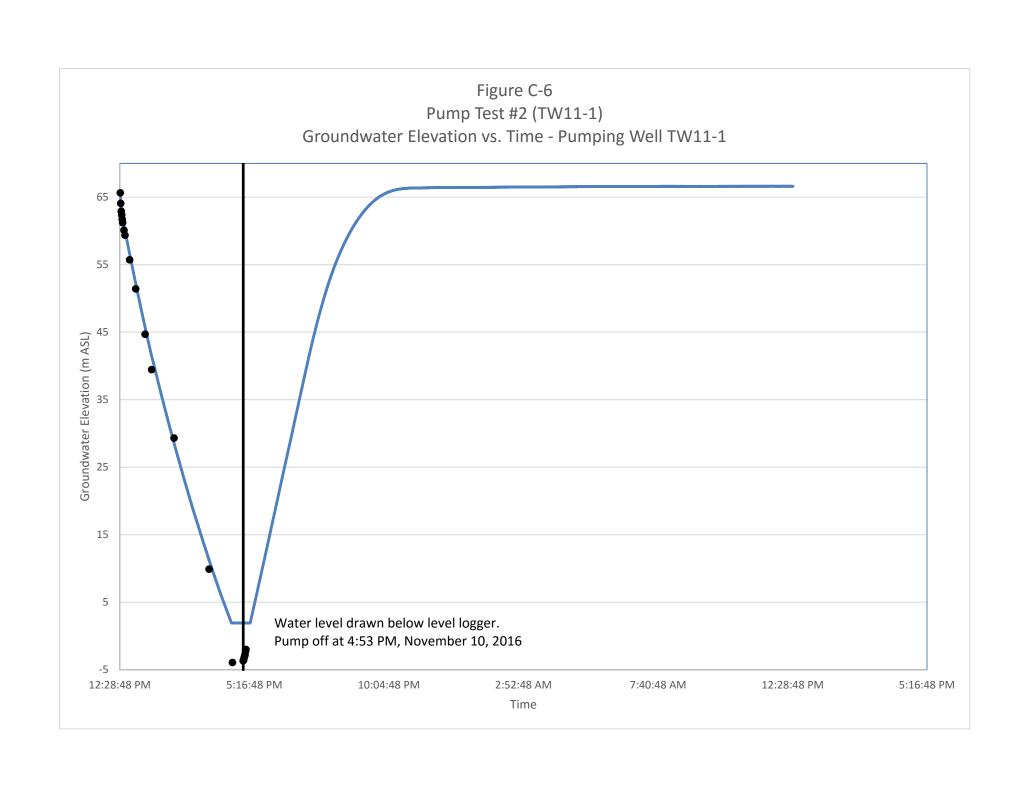


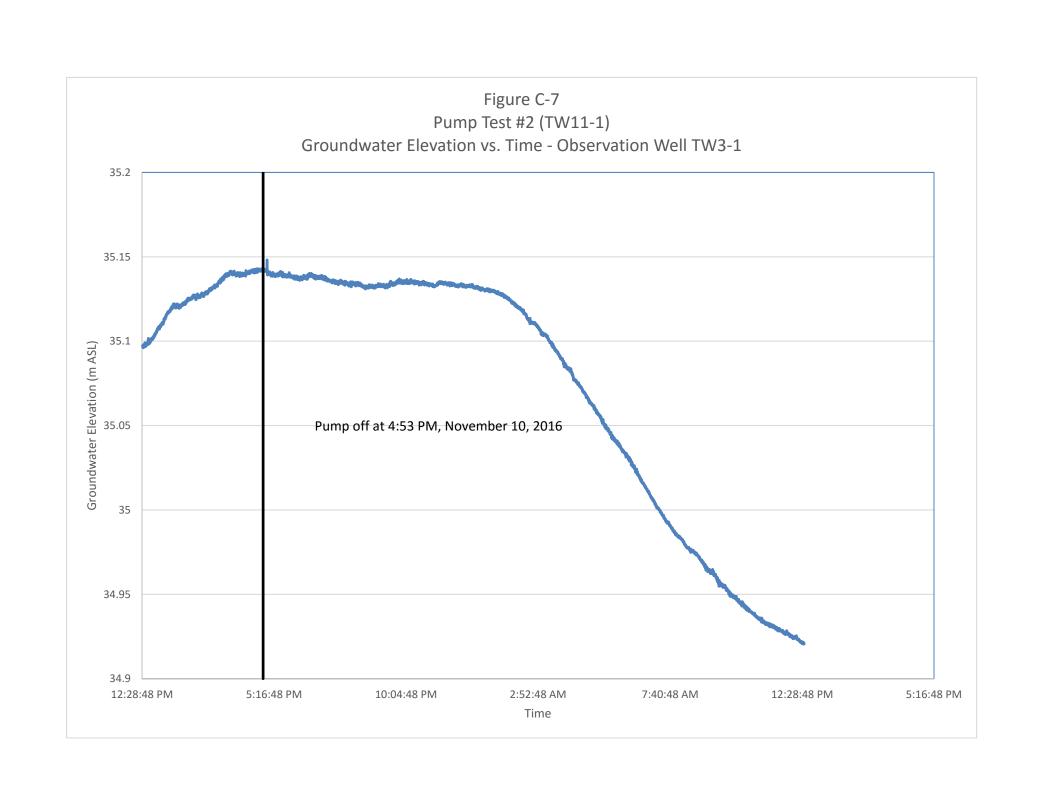


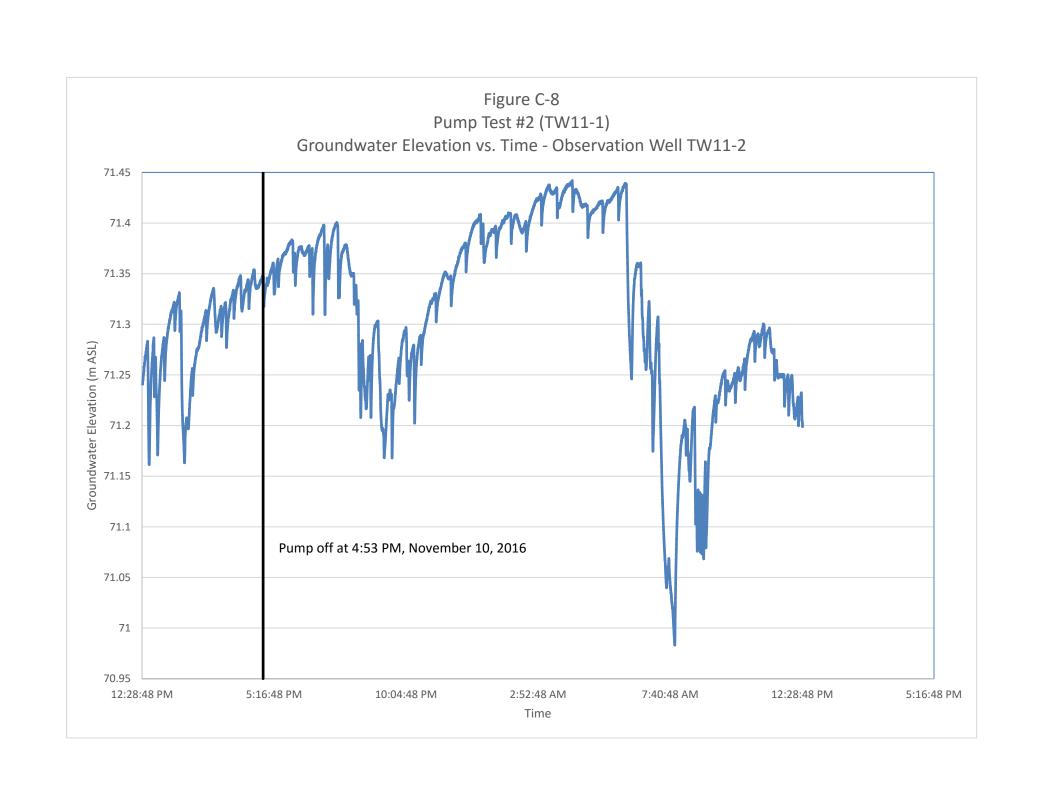


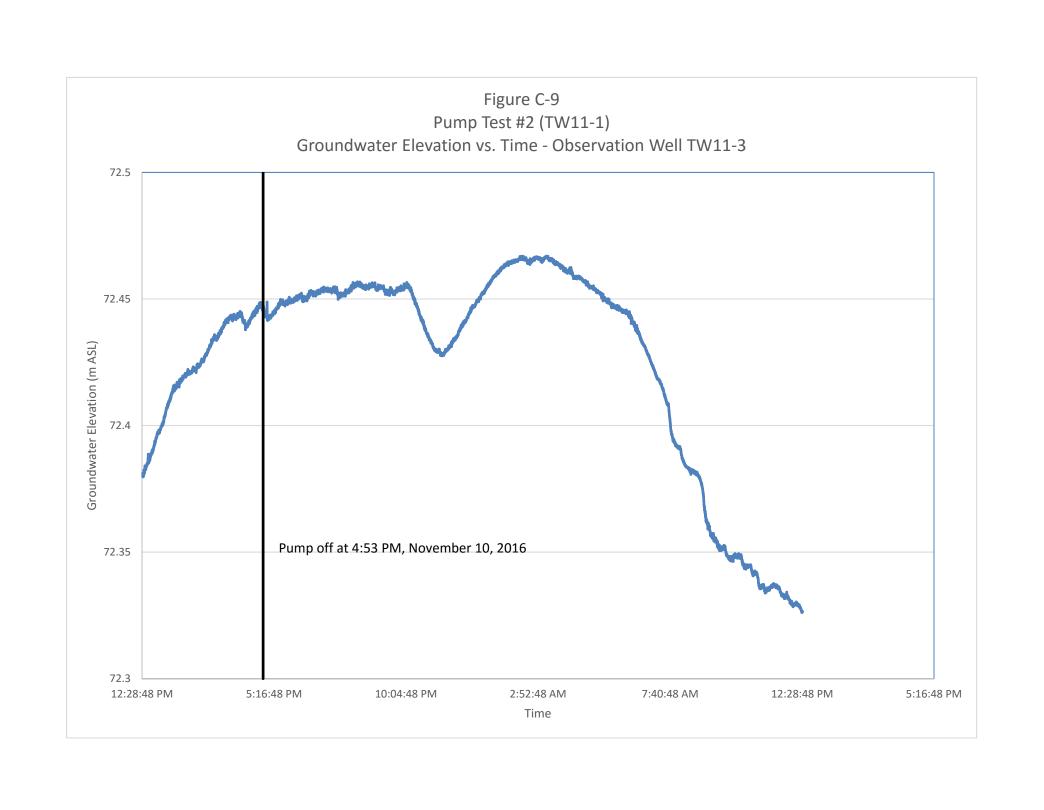


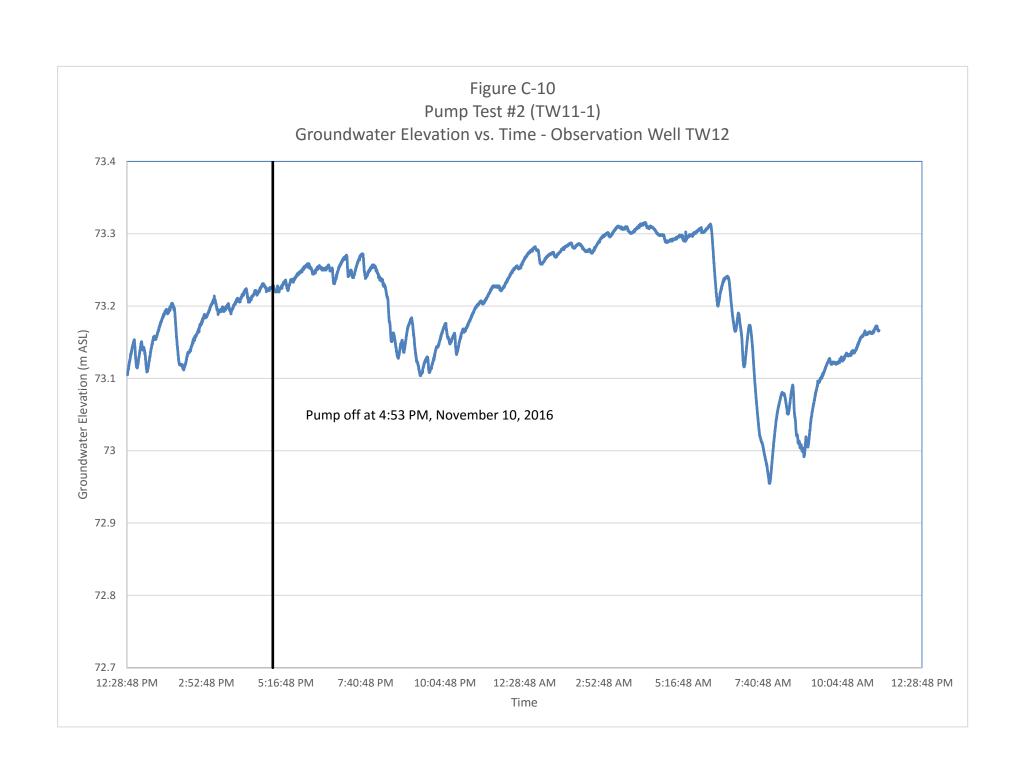


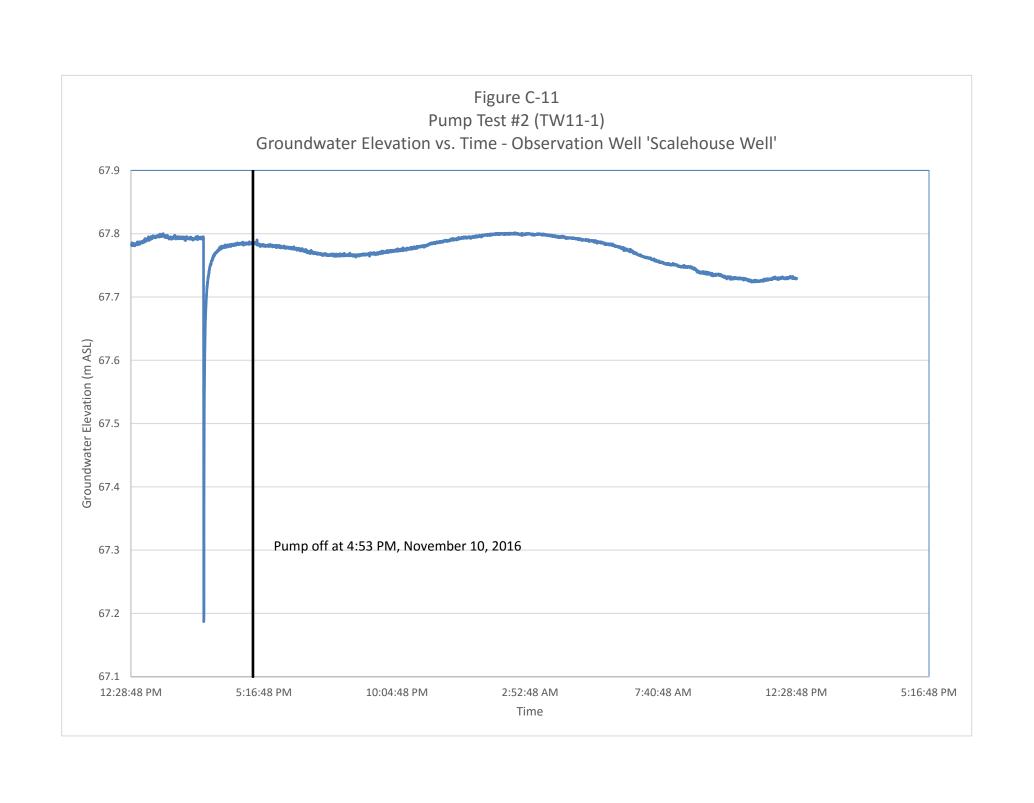












# **APPENDIX D Hydraulic Conductivity Testing Results**

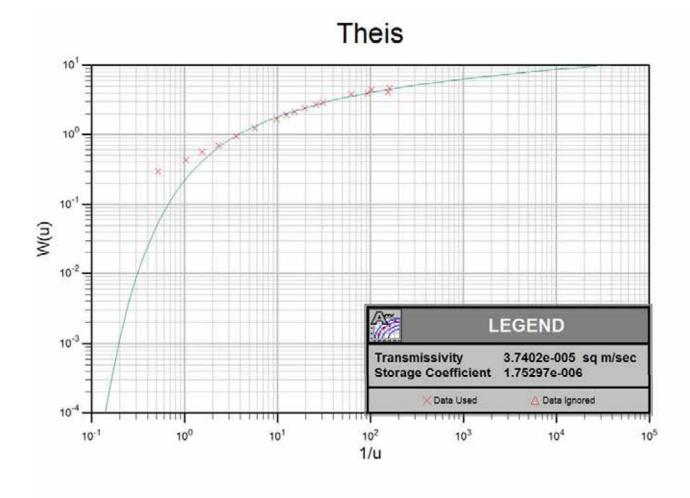


Figure D-1: Theis Analysis, TW10

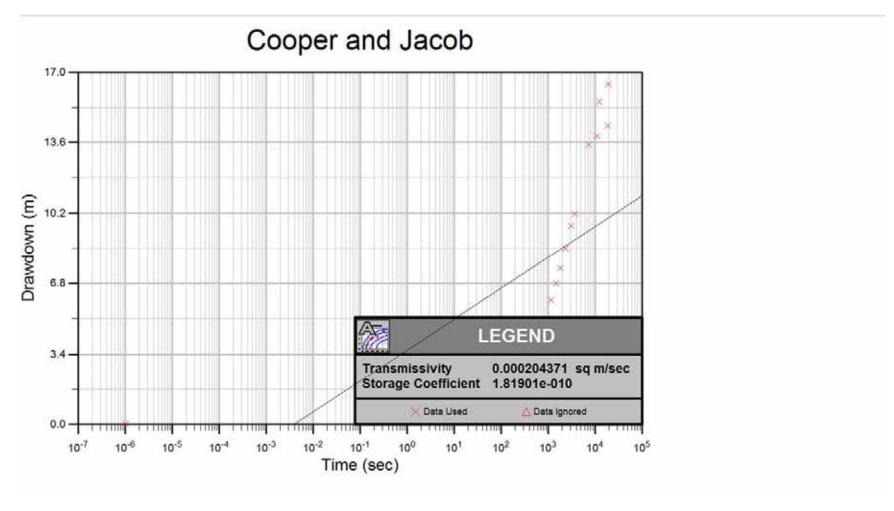


Figure D-2: Cooper-Jacob Analysis, TW10

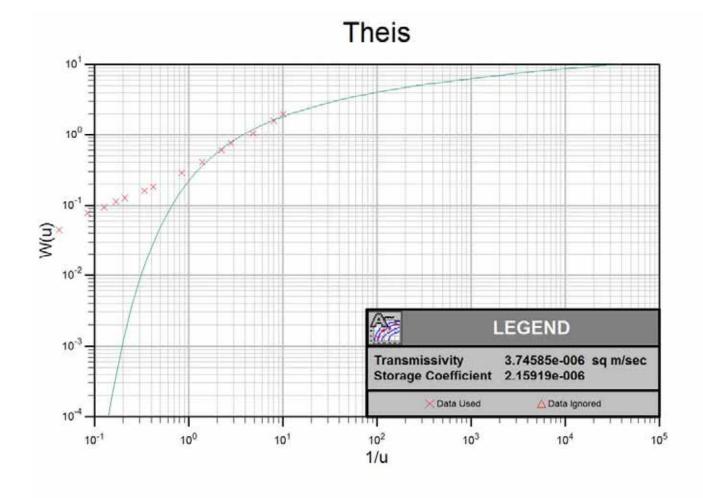


Figure D-3: Theis Analysis, TW11-1

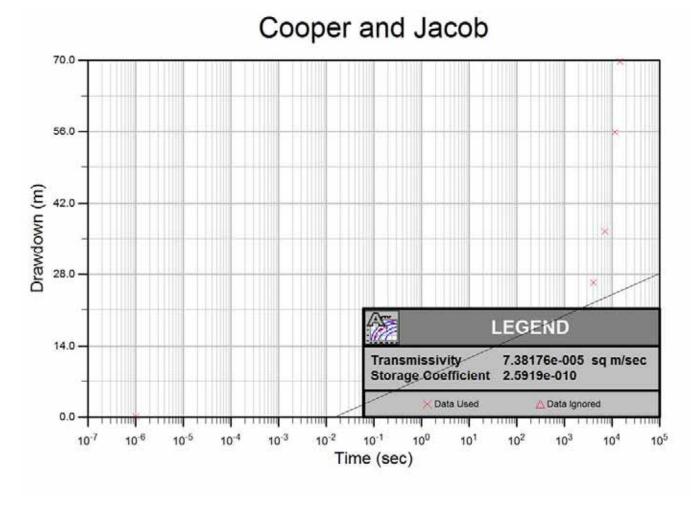


Figure D-4: Cooper-Jacob Analysis, TW11-1

# **APPENDIX E**

**Laboratory Certificates of Analysis (Water Quality Results)** 



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# Certificate of Analysis

# McIntosh Perry Consulting Eng. (Carp)

115 Walgreen Rd. RR#3 Carp, ON KOA 1LO Attn: Jordan Bowman

Client PO: 16.0280 Project: 16.0280 Custody: 33125

Report Date: 18-Nov-2016 Order Date: 11-Nov-2016

Order #: 1646386

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

 Paracel ID
 Client ID

 1646386-01
 TW11-I-1

 1646386-02
 TW11-I-2

Approved By:

Mark Froto

Mark Foto, M.Sc. Lab Supervisor



Report Date: 18-Nov-2016 Certificate of Analysis Order Date: 11-Nov-2016 Client: McIntosh Perry Consulting Eng. (Carp) Client PO: 16.0280 **Project Description: 16.0280** 

# **Analysis Summary Table**

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Alkalinity, total to pH 4.5	EPA 310.1 - Titration to pH 4.5	11-Nov-16	11-Nov-16
Ammonia, as N	EPA 351.2 - Auto Colour	18-Nov-16	18-Nov-16
Anions	EPA 300.1 - IC	14-Nov-16	14-Nov-16
Colour	SM2120 - Spectrophotometric	11-Nov-16	11-Nov-16
Conductivity	EPA 9050A- probe @25 °C	11-Nov-16	11-Nov-16
Dissolved Organic Carbon	MOE E3247B - Combustion IR, filtration	14-Nov-16	16-Nov-16
E. coli	MOE E3407	11-Nov-16	11-Nov-16
Fecal Coliform	SM 9222D	11-Nov-16	11-Nov-16
Heterotrophic Plate Count	SM 9215C	12-Nov-16	12-Nov-16
Metals, ICP-MS	EPA 200.8 - ICP-MS	15-Nov-16	16-Nov-16
pH	EPA 150.1 - pH probe @25 °C	11-Nov-16	11-Nov-16
Phenolics	EPA 420.2 - Auto Colour, 4AAP	16-Nov-16	16-Nov-16
Subdivision Package	Hardness as CaCO3	15-Nov-16	15-Nov-16
Sulphide	SM 4500SE - Colourimetric	14-Nov-16	15-Nov-16
Tannin/Lignin	SM 5550B - Colourimetric	14-Nov-16	14-Nov-16
Total Coliform	MOE E3407	11-Nov-16	11-Nov-16
Total Dissolved Solids	SM 2540C - gravimetric, filtration	15-Nov-16	16-Nov-16
Total Kjeldahl Nitrogen	EPA 351.2 - Auto Colour, digestion	14-Nov-16	15-Nov-16
Turbidity	SM 2130B - Turbidity meter	11-Nov-16	11-Nov-16



Certificate of Analysis

Client: McIntosh Perry Consulting Eng. (Carp)

Report Date: 18-Nov-2016 Order Date: 11-Nov-2016

Client PO: 16.0280 **Project Description: 16.0280** 

	Client ID: Sample Date: Sample ID: MDL/Units	TW11-I-1 10-Nov-16 1646386-01 Water	TW11-I-2 10-Nov-16 1646386-02 Water	- - -	- - -
Microbiological Parameters	WIDE/OTHES	· · · · · · · · · · · · · · · · · · ·	· · · · · ·	I	
E. coli	1 CFU/100 mL	<10 [1]	ND	-	-
Fecal Coliforms	1 CFU/100 mL	<10 [1]	ND	-	-
Total Coliforms	1 CFU/100 mL	<10 [1]	1	-	-
Heterotrophic Plate Count	10 CFU/mL	10	30	-	-
General Inorganics	<del>-</del>		•	•	
Alkalinity, total	5 mg/L	272	287	-	-
Ammonia as N	0.01 mg/L	0.82	0.49	-	-
Dissolved Organic Carbon	0.5 mg/L	2.3	2.5	-	-
Colour	2 TCU	<2	<2	-	-
Conductivity	5 uS/cm	1740	821	-	-
Hardness	mg/L	175	129	-	-
pН	0.1 pH Units	8.2	8.3	-	-
Phenolics	0.001 mg/L	<0.001	<0.001	-	-
Total Dissolved Solids	10 mg/L	902	430	-	-
Sulphide	0.02 mg/L	0.86	0.78	-	-
Tannin & Lignin	0.1 mg/L	0.1	<0.1	-	-
Total Kjeldahl Nitrogen	0.1 mg/L	0.8	0.5	-	-
Turbidity	0.1 NTU	151	37.8	-	-
Anions				•	
Chloride	1 mg/L	383	76	-	-
Fluoride	0.1 mg/L	0.5	0.4	-	-
Nitrate as N	0.1 mg/L	<0.1	<0.1	-	-
Nitrite as N	0.05 mg/L	<0.05	<0.05	-	-
Sulphate	1 mg/L	36	31	-	-
Metals				-	
Calcium	100 ug/L	28300	20700	-	-
Iron	100 ug/L	12700	1050	-	-
Magnesium	200 ug/L	25300	18800	-	-
Manganese	5 ug/L	79	22	-	-
Potassium	100 ug/L	10500	6520	-	-
Sodium	200 ug/L	251000	106000	-	-



Order #: 1646386

Report Date: 18-Nov-2016 Order Date: 11-Nov-2016

**Project Description: 16.0280** 

Client: McIntosh Perry Consulting Eng. (Carp)

Client PO: 16.0280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Chloride	ND	1	mg/L						
Fluoride	ND	0.1	mg/L						
Nitrate as N	ND	0.1	mg/L						
Nitrite as N	ND	0.05	mg/L						
Sulphate	ND	1	mg/L						
General Inorganics									
Alkalinity, total	ND	5	mg/L						
Ammonia as N	ND	0.01	mg/L						
Dissolved Organic Carbon	ND	0.5	mg/L						
Colour	ND	2	TČU						
Conductivity	ND	5	uS/cm						
Phenolics	ND	0.001	mg/L						
Total Dissolved Solids	ND	10	mg/L						
Sulphide	ND	0.02	mg/L						
Tannin & Lignin	ND	0.1	mg/L						
Total Kjeldahl Nitrogen	ND	0.1	mg/L						
Turbidity	ND	0.1	NŤU						
Metals									
Calcium	ND	100	ug/L						
Iron	ND	100	ug/L						
Magnesium	ND	200	ug/L						
Manganese	ND	5	ug/L						
Potassium	ND	100	ug/L						
Sodium	ND	200	ug/L						
Microbiological Parameters									
E. coli	ND	1	CFU/100 mL						
Fecal Coliforms	ND	1	CFU/100 mL						
Total Coliforms	ND	1	CFU/100 mL						
Heterotrophic Plate Count	ND	10	CFU/mL						



Report Date: 18-Nov-2016 Certificate of Analysis Client: McIntosh Perry Consulting Eng. (Carp) Order Date: 11-Nov-2016 Client PO: 16.0280

**Project Description: 16.0280** 

Method Quality Control: Duplicate

		Reporting		Source		%REC		RPD	
Analyte	Result	Limit	Units	Result	%REC	Limit	RPD	Limit	Notes
Anions									
Chloride	36.9	1	mg/L	36.9			0.1	10	
Fluoride	0.40	0.1	mg/L	0.38			4.5	10	
Nitrate as N	ND	0.1	mg/L	ND				20	
Nitrite as N	ND	0.05	mg/L	ND				20	
Sulphate	49.4	1	mg/L	49.4			0.2	10	
General Inorganics									
Alkalinity, total	366	5	mg/L	367			0.2	14	
Ammonia as N	0.097	0.01	mg/L	0.088			9.7	8	QR-01
Dissolved Organic Carbon	0.7	0.5	mg/L	ND			0.0	37	
Colour	ND	2	TČU	ND				12	
Conductivity	749	5	uS/cm	752			0.4	11	
pH	7.7	0.1	pH Units	7.6			0.9	10	
Phenolics	ND	0.001	mg/L	ND				10	
Total Dissolved Solids	340	10	mg/L	344			1.2	10	
Sulphide	ND	0.02	mg/L	ND				10	
Tannin & Lignin	0.1	0.1	mg/L	0.1			9.4	11	
Total Kjeldahl Nitrogen	ND	0.1	mg/L	ND				10	
Turbidity	153	0.1	NŤU	151			1.3	10	
Metals									
Calcium	32000	100	ug/L	32200			0.7	20	
Iron	ND	100	ug/L	ND			0.0	20	
Magnesium	8520	200	ug/L	8510			0.1	20	
Manganese	ND	5	ug/L	ND			0.0	20	
Potassium	1680	100	ug/L	1680			0.2	20	
Sodium	15500	200	ug/L	15500			0.1	20	
Microbiological Parameters									
E. coli	ND	10	CFU/100 mL	ND				30	BAC
Fecal Coliforms	ND	10	CFU/100 mL	ND				30	BAC
Total Coliforms	ND	10	CFU/100 mL	ND				30	BAC
Heterotrophic Plate Count	ND	10	CFU/mL	10			0.0	30	



Client PO: 16.0280

Order #: 1646386

Report Date: 18-Nov-2016 Order Date: 11-Nov-2016

Project Description: 16.0280

Method Quality Control: Spike

Client: McIntosh Perry Consulting Eng. (Carp)

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Chloride	46.4	1	mg/L	36.9	95.9	78-112			
Fluoride	1.27	0.1	mg/L	0.38	88.8	73-113			
Nitrate as N	0.92	0.1	mg/L	ND	91.6	81-112			
Nitrite as N	0.950	0.05	mg/L	ND	95.0	76-117			
Sulphate	59.1	1	mg/L	49.4	97.1	75-111			
General Inorganics									
Ammonia as N	0.346	0.01	mg/L	0.088	103	81-124			
Dissolved Organic Carbon	9.3	0.5	mg/L	2.7	65.3	60-133			
Phenolics	0.024	0.001	mg/L	ND	97.6	69-132			
Total Dissolved Solids	102	10	mg/L		102	75-125			
Sulphide	0.48	0.02	mg/L	ND	97.0	79-115			
Tannin & Lignin	1.1	0.1	mg/L	0.1	102	71-113			
Total Kjeldahl Nitrogen	1.81	0.1	mg/L	ND	90.3	81-126			
Metals									
Calcium	925		ug/L	ND	89.9	80-120			
Iron	919		ug/L	ND	90.2	80-120			
Magnesium	9090		ug/L	8510	57.9	80-120		Q	M-07
Manganese	49.0		ug/L	ND	96.0	80-120			
Potassium	2510		ug/L	1680	82.9	80-120			
Sodium	931		ug/L	ND	86.0	80-120			



Order #: 1646386

Report Date: 18-Nov-2016 Order Date: 11-Nov-2016

Project Description: 16.0280

Client: McIntosh Perry Consulting Eng. (Carp)
Client PO: 16.0280

# **Qualifier Notes:**

**Login Qualifiers:** 

Sample preserved upon receipt at the lab.

Applies to samples: TW11-I-1, TW11-I-2

Sample Qualifiers:

1: Bacteria sample was diluted due to suspended particulate matter.

QC Qualifiers:

QM-07: The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on

other acceptable QC.

QR-01: Duplicate RPD is high, however, the sample result is less than 10x the MDL.

### **Sample Data Revisions**

None

# **Work Order Revisions / Comments:**

None

### **Other Report Notes:**

n/a: not applicable ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.



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Chain of Custody (Lab Use Only)

33125

Page 1 of Turnaround Time:

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# Certificate of Analysis

# McIntosh Perry Consulting Eng. (Carp)

115 Walgreen Rd. RR#3 Carp, ON KOA 1LO Attn: Jordan Bowman

Client PO:

Project: 16-0280 Report Date: 17-Nov-2016 Custody: 33124 Order Date: 9-Nov-2016

Order #: 1646210

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

 Paracel ID
 Client ID

 1646210-01
 TW10-1

 1646210-02
 TW10-2

Approved By:

Mark Froto

Mark Foto, M.Sc. Lab Supervisor



Report Date: 17-Nov-2016 Certificate of Analysis Client: McIntosh Perry Consulting Eng. (Carp) Order Date: 9-Nov-2016 Client PO: **Project Description: 16-0280** 

# **Analysis Summary Table**

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Alkalinity, total to pH 4.5	EPA 310.1 - Titration to pH 4.5	10-Nov-16	10-Nov-16
Ammonia, as N	EPA 351.2 - Auto Colour	17-Nov-16	17-Nov-16
Anions	EPA 300.1 - IC	9-Nov-16	11-Nov-16
Colour	SM2120 - Spectrophotometric	9-Nov-16	9-Nov-16
Conductivity	EPA 9050A- probe @25 °C	10-Nov-16	10-Nov-16
Dissolved Organic Carbon	MOE E3247B - Combustion IR, filtration	14-Nov-16	15-Nov-16
E. coli	MOE E3407	9-Nov-16	9-Nov-16
Fecal Coliform	SM 9222D	9-Nov-16	9-Nov-16
Heterotrophic Plate Count	SM 9215C	9-Nov-16	9-Nov-16
Metals, ICP-MS	EPA 200.8 - ICP-MS	14-Nov-16	15-Nov-16
pH	EPA 150.1 - pH probe @25 °C	10-Nov-16	10-Nov-16
Phenolics	EPA 420.2 - Auto Colour, 4AAP	14-Nov-16	14-Nov-16
Subdivision Package	Hardness as CaCO3	14-Nov-16	15-Nov-16
Sulphide	SM 4500SE - Colourimetric	14-Nov-16	15-Nov-16
Tannin/Lignin	SM 5550B - Colourimetric	9-Nov-16	9-Nov-16
Total Coliform	MOE E3407	9-Nov-16	9-Nov-16
Total Dissolved Solids	SM 2540C - gravimetric, filtration	11-Nov-16	14-Nov-16
Total Kjeldahl Nitrogen	EPA 351.2 - Auto Colour, digestion	14-Nov-16	15-Nov-16
Turbidity	SM 2130B - Turbidity meter	9-Nov-16	9-Nov-16



Certificate of Analysis

Client: McIntosh Perry Consulting Eng. (Carp)

Client PO:

Report Date: 17-Nov-2016 Order Date: 9-Nov-2016 **Project Description: 16-0280** 

TW10-2 TW10-1 Client ID: Sample Date: 08-Nov-16 08-Nov-16 1646210-01 1646210-02 Sample ID: Water Water MDL/Units **Microbiological Parameters** 1 CFU/100 mL <10 [1] [2] <10[1] 1 CFU/100 mL **Fecal Coliforms** <10[1] <10 [1] [2] 1 CFU/100 mL **Total Coliforms** <10 [1] [2] <10[1] 10 CFU/mL Heterotrophic Plate Count 60 220 _ General Inorganics Alkalinity, total 5 mg/L 287 279 0.01 mg/L Ammonia as N 0.42 0.60 0.5 mg/L Dissolved Organic Carbon 2.0 1.8 2 TCU 22 7 Colour 5 uS/cm Conductivity 1380 720 mg/L Hardness 17 100 0.1 pH Units рΗ 8.5 8.2 0.001 mg/L **Phenolics** 0.004 < 0.001 _ _ 10 mg/L **Total Dissolved Solids** 780 420 0.02 mg/L Sulphide 0.23 4.54 0.1 mg/L 8.0 Tannin & Lignin 0.4 0.1 mg/L Total Kjeldahl Nitrogen 0.5 0.6 0.1 NTU **Turbidity** 92.4 58.4 Anions 1 mg/L Chloride 256 45 0.1 mg/L Fluoride 0.4 8.0 0.1 mg/L Nitrate as N < 0.1 < 0.1 _ _ 0.05 mg/L Nitrite as N < 0.05 < 0.05 Sulphate 1 mg/L 33 37 _ Metals 100 ug/L Calcium 3680 16500 100 ug/L Iron <100 270 200 ug/L Magnesium 1990 14200 5 ug/L Manganese <5 11 _ 100 ug/L Potassium 5640 6830 200 ug/L Sodium 274000 96200 _ _



Order #: 1646210

Report Date: 17-Nov-2016 Order Date: 9-Nov-2016

**Project Description: 16-0280** 

Client: McIntosh Perry Consulting Eng. (Carp)

Client PO:

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Chloride	ND	1	mg/L						
Fluoride	ND	0.1	mg/L						
Nitrate as N	ND	0.1	mg/L						
Nitrite as N	ND	0.05	mg/L						
Sulphate	ND	1	mg/L						
General Inorganics									
Alkalinity, total	ND	5	mg/L						
Ammonia as N	ND	0.01	mg/L						
Dissolved Organic Carbon	ND	0.5	mg/L						
Colour	ND	2	TČU						
Conductivity	ND	5	uS/cm						
Phenolics	ND	0.001	mg/L						
Total Dissolved Solids	ND	10	mg/L						
Sulphide	ND	0.02	mg/L						
Tannin & Lignin	ND	0.1	mg/L						
Total Kjeldahl Nitrogen	ND	0.1	mg/L						
Turbidity	ND	0.1	NŤU						
Metals									
Calcium	ND	100	ug/L						
Iron	ND	100	ug/L						
Magnesium	ND	200	ug/L						
Manganese	ND	5	ug/L						
Potassium	ND	100	ug/L						
Sodium	ND	200	ug/L						
Microbiological Parameters									
E. coli	ND	1	CFU/100 mL						
Fecal Coliforms	ND	1	CFU/100 mL						
Total Coliforms	ND	1	CFU/100 mL						
Heterotrophic Plate Count	ND	10	CFU/mL						



Report Date: 17-Nov-2016 Certificate of Analysis Client: McIntosh Perry Consulting Eng. (Carp) Order Date: 9-Nov-2016 Client PO:

**Project Description: 16-0280** 

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Chloride	91.9	1	mg/L	89.8			2.4	10	
Fluoride	1.07	0.1	mg/L	1.07			0.1	10	
Nitrate as N	ND	0.1	mg/L	ND				20	
Nitrite as N	ND	0.05	mg/L	ND				20	
Sulphate	75.2	1	mg/L	75.9			0.9	10	
General Inorganics									
Alkalinity, total	218	5	mg/L	219			0.2	14	
Ammonia as N	0.125	0.01	mg/L	0.117			6.0	8	
Dissolved Organic Carbon	1.9	0.5	mg/L	0.7			97.3	37	QR-01
Colour	ND	2	TČU	ND				12	
Conductivity	397	5	uS/cm	423			6.3	11	
pH	7.7	0.1	pH Units	7.7			0.4	10	
Phenolics	ND	0.001	mg/L	ND				10	
Total Dissolved Solids	544	10	mg/L	582			6.8	10	
Sulphide	ND	0.02	mg/L	ND				10	
Tannin & Lignin	ND	0.1	mg/L	ND			0.0	11	
Total Kjeldahl Nitrogen	ND	0.1	mg/L	ND				10	
Turbidity	92.1	0.1	NTU	92.4			0.3	10	
Metals									
Calcium	24000	100	ug/L	24400			1.7	20	
Iron	137	100	ug/L	144			4.8	20	
Magnesium	5030	200	ug/L	5290			5.2	20	
Manganese	38.5	5	ug/L	40.7			5.5	20	
Potassium	2640	100	ug/L	2750			4.1	20	
Sodium	25300	200	ug/L	26400			4.6	20	
Microbiological Parameters									
E. coli	ND	10	CFU/100 mL	ND				30	BAC
Fecal Coliforms	ND	10	CFU/100 mL	ND				30	BAC BAC
Total Coliforms	ND	10	CFU/100 mL	ND				30	BAC BAC
Heterotrophic Plate Count	180	10	CFU/mL	220			20.0	30	BAC



Order #: 1646210

Report Date: 17-Nov-2016 Order Date: 9-Nov-2016

Client: McIntosh Perry Consulting Eng. (Carp)Order Date: 9-Nov-2016Client PO:Project Description: 16-0280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Chloride	98.4	1	mg/L	89.8	86.5	78-112			
Fluoride	2.07	0.1	mg/L	1.07	100	73-113			
Nitrate as N	0.94	0.1	mg/L	ND	93.6	81-112			
Nitrite as N	0.981	0.05	mg/L	ND	98.1	76-117			
Sulphate	84.1	1	mg/L	75.9	82.1	75-111			
General Inorganics									
Ammonia as N	0.347	0.01	mg/L	0.117	91.9	81-124			
Dissolved Organic Carbon	8.8	0.5	mg/L	2.0	68.4	60-133			
Phenolics	0.023	0.001	mg/L	ND	93.6	69-132			
Total Dissolved Solids	90.0	10	mg/L		90.0	75-125			
Sulphide	0.48	0.02	mg/L	ND	97.0	79-115			
Tannin & Lignin	1.1	0.1	mg/L	ND	110	71-113			
Total Kjeldahl Nitrogen	1.81	0.1	mg/L	ND	90.3	81-126			
Metals									
Calcium	994		ug/L	ND	99.4	80-120			
Iron	998		ug/L	ND	99.8	80-120			
Magnesium	1020		ug/L	ND	102	80-120			
Manganese	49.4		ug/L	ND	98.9	80-120			
Potassium	1040		ug/L	ND	103	80-120			
Sodium	1010		ug/L	ND	101	80-120			



Certificate of Analysis Client: McIntosh Perry Consulting Eng. (Carp)

Order Date: 9-Nov-2016 Client PO: Project Description: 16-0280

## **Qualifier Notes:**

# **Login Qualifiers:**

Sample - Filtered and preserved by Paracel upon receipt at the laboratory - Metals not field filtered, preservative not rinsed out. Subsampled from General bottle for metals.

Applies to samples: TW10-1, TW10-2

Sample - Not field filtered -

Applies to samples: TW10-1, TW10-2

#### Sample Qualifiers:

1: Bacteria sample was diluted due to suspended particulate matter.

2: Confluent background colonies on filter: may interfere with target reactions and the analysts' ability to count E. coli & Total Coliform. The target colonies may be under-represented.

#### QC Qualifiers:

QR-01: Duplicate RPD is high, however, the sample result is less than 10x the MDL.

QS-02: Spike level outside of control limits. Analysis batch accepted based on other QC included in the batch.

#### **Sample Data Revisions**

None

### **Work Order Revisions / Comments:**

None

### **Other Report Notes:**

n/a: not applicable ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

Report Date: 17-Nov-2016



Client Name: MPCE

TRUSTED . RESPONSIVE .

Project Reference:

16.0280

Head Office 300-2319 St. Laurent Blvd. Ottawa, Ontario K1G 4J8 p: 1-800-749-1947 e: paracel@paracellabs.com

www.paracellabs.com

Chain of Custody (Lab Use Only)

No 33124

Page / of / Turnaround Time:

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Chain of Custody (Blank) - Rev 0.4 Feb 2016

Date Time: 8. Nov. 2016

18:53 5

Temperature:

# **APPENDIX F Draft Quarry Plans**